

TLR Curtailments

Requester: SPP

Flowgate:FAIRPORT-LATHROP/LATAN STRANGER FLGT.1001

Date: 10/19/99 AT 0115

END TIME:

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID	End Time
DPC	MPS	2-NH	75	75	0200	DPC_UCUMOO0000669_MPS	
WAUE	MPS	3-ND	90	90	0200	WAUE_UCUMOO0000663_MPS	

TLR Curtailments

Requester: SPP

Flowgate: NesOneNesTui #5063

Date: 9/27/99

END TIME:2200

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID	End Time
MPS	OKGE	NH-2	100	100	1515	MPS_OERI24000001000_OKGE	2200
MPS	OKGE	NH-2	100	100	1515	MPS_OERI24000002000_OKGE	2200
MPS	OKGE	NH-2	100	100	1515	MPS_OERI24000003000_OKGE	2200

TLR Curtailments

Requester: MAPP

Flowgate: COOPER_SOUTH

Date: 8/18/99

END TIME:2219

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID	END TIME
9	MPS	NW-4	50	50	1000	GRE_UCUMO705D000_MPS	2219
WAUE	MPS	NM-5	45	19	1000	WAUE_UCUMO642D003_MPS	2219
GRE	MPS	NM-5	48	27	1000	GRE_UCUMO704D002_MPS	2219

TLR Curtailments

Requester: SPP

Flowgate: EAU CLAIRE-ARPIN

Date: 7/16/99

END TIME:

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID	End Time
SPC	MPS	NH-2	25	25	1800	SPC_TEMUES002T001_MPS	1908

TLR Curtailments

Requester: SPP

Flowgate: HAWXFRGAWXFR

Date: 7/08/99

END TIME:

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID	End Time
WAUE	MPS	NH-2	50	9	1715	WAUE_RESEE107B000_MPS	2010
WAUE	MPS	NH-2	50	9	1715	WAUE_RESEE118B000_MPS	2010

TLR Curtailments

Requester: SPP

Flowgate: LACYGNE-STILLWELL

Date: 7/8/99

END TIME:

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID	End Time
WAUE	MPS	NH-2	50	11	1545	WAUE_RESEE107B000_MPS	2130
WAUE	MPS	NH-2	50	11	1545	WAUE_RESEE118B000_MPS	2130
OKGE	SJLP	NH-2	50	32	1545	OKGE_OER124727X000_SJLP	2130

TLR Curtailments

Requester: SPP

Flowgate: EAU CLAIRE-ARPIN 345KV

Date: 6/28/99

END TIME:

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID	End Time
GRE	MPS	NH-2	45	45	1000	GRE_UCUMO228C000_MPS	1831
WAUE	MPS	ND-3	50	50	1000	WAUE_UCUMO806B001_MPS	1831
GRE	MPS	NW-4	100	100	1000	GRE_UCUMO101B000_MPS	1831

TLR Curtailments

Requester: MAPP

Flowgate: EAU CLAIRE-ARPIN 345 KV

Date: 6/12/99

END TIME:

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID	END TIME
WAUE	MPS	ND-3	50	25	930	UNKNOWN	

TLR Curtailments

Requester: MAPP

Flowgate: EAU CLAIRE-ARPIN 345 KV

Date: 6/12/99

END TIME:

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID	END TIME
LES	MPS	NH-2	25	25	700	LES_UCUM0064A000_MPS	

TLR Curtailments

Requester: MAIN

Flowgate: EAU CLAIRE to ARPIN

Date: 06/10/99

END TIME:

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID	END TIME
SPC	MPS	ND-3	25	15	700	SPC_CRGL1A102A000_MPS	2200
SPC	MPS	ND-3	10	10	1100	SPC_UCUM0102A000_MPS	2200
SPC	MPS	ND-3	8	8	1100	SPC_CRGL1A102A002_MPS	2200
GRE	MPS	NW-4	50	50	1100	GRE_UCUM0504C000_MPS	2200
WAUE	MPS	NW-4	41	41	1100	WAUE_UCUM0502C001_MPS	2200
WAU	MPS	NW-4	9	9	1100	WAUE_UCUM0501C000_MPS	2200

TLR Curtail

Requester: MAIN

Flowgate: EAU CLAIRE-ARPIN 345 KV

Date: 6/7/99

END TIME:

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID	END TIME
SPC	MPS	NH-2	100	72	700	SPC_CRGL1A069A000_MPS	2100

TLR Curtailments

Requester: EES

Flowgate: NEW MADRID-DELL

Date: 6/3/99

END TIME: The schedules with end times were inadvertently cut due to bad information from the IIDC.

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID	END TIME
AMRN	MPS	NS-1	50	50	900	AMRN_UCUM0397C000_MPS	1100
MPS	OKGE	NH-2	200	179	900	MPS_OERI24628X000_OKGE	

END TIME: Curtailments: The following curtailments were made of SPP schedules: TLR Curtailments
Requester: ALTE

Flowgate: EAU CLAIRE to ARPIN ID 3006

Date: 6/2/99

END TIME: At 0925 MAIN went to level 2b, all schedules that were curtailed may return to pre contingent levels unless covered by MAPP LLR.

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID
WAUE	MPS	NH-2	100	9	800	WAUE_UCUMO369C000_MPS
GRE	MPS	NH-2	30	4	800	GRE_UCUMO385C000_MPS
GRE	MPS	NH-2	20	2	800	GRE_UCUMO385C000_MPS

TLR Curtailments

Requester: ALTE

Flowgate: Eau Claire -Arpin 345 kv

Date: 5/17/99

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID
WAUE	MPS	NH_2	5	3	1000	WAUE_UCUMO013C001_MPS

TLR Curtailments

Requester: KCPL

Flowgate: StjLaklatStr ID.

Date: 5/15/99

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID
SJLP	MPS	NH-2	50	32	1700	SJLP_UCUMO029C000_MPS
MEC	MPS	NH-2	50	33	1700	MEC_UCUMO030C000_MPS

TLR Curtailments

Requester: EES

Flowgate: New Madrid-Dell

Date: 10/1/98

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID
MPS	CSWS	NH_2	50	27	1145	MPS_MPSPM339C001_CSWS

TLR Curtailments

Requester: CSWS

Flowgate: CraAshValLyd (Craig Jct-Ashdown 138 kV for the outage of Valiant-Lydia 345 kV)

Date: 9/22/98

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID
MPS	CLEC	NH-2	100	15	1715	MPS_OERI941A000_CLEC
MPS	CLEC	NH-2	50	8	1715	MPS_OERI938A000_CLEC

TLR Curtailments

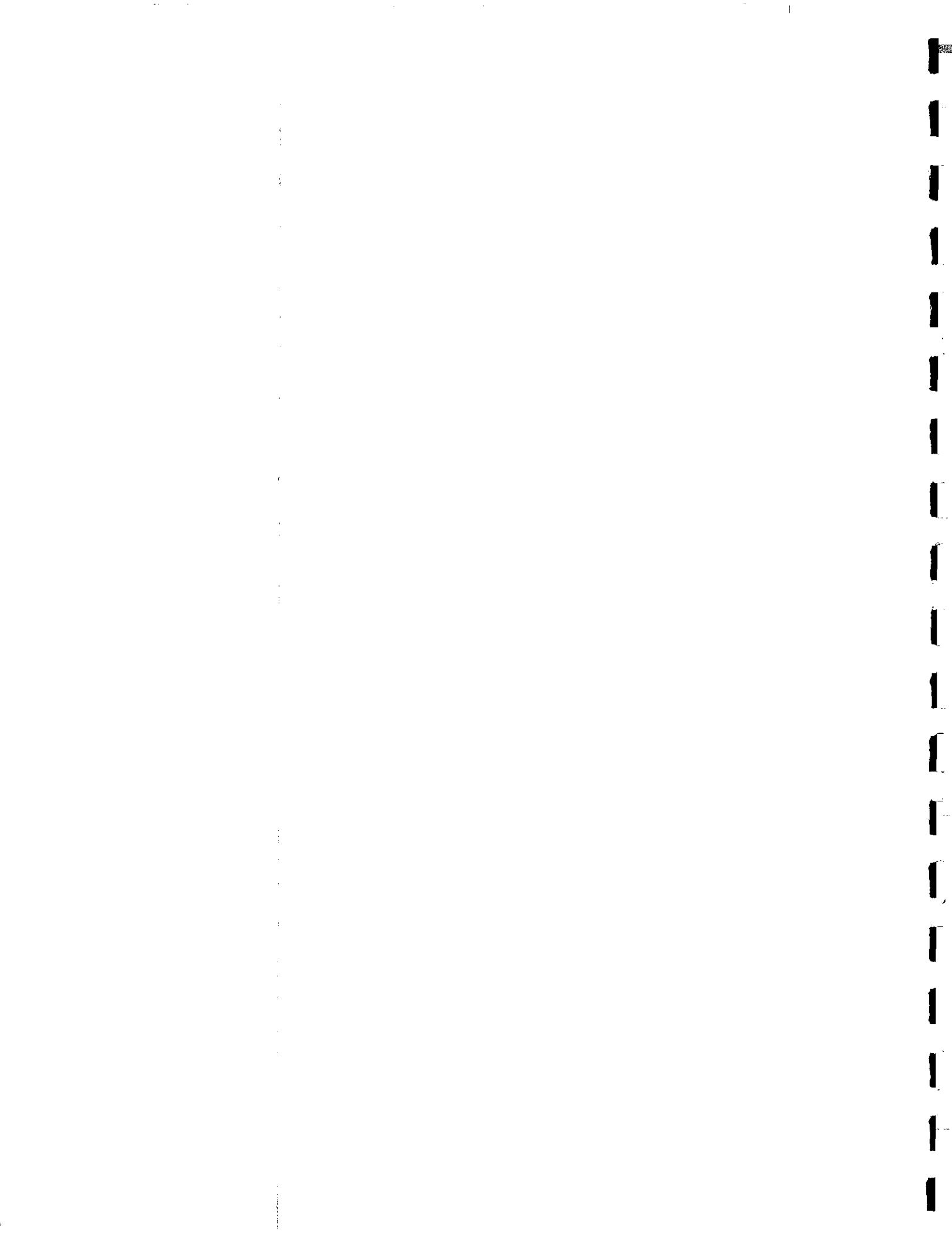
Requester: EES

Flowgate: WilLivWebRic (Wilburt-Livonia 138 kV for the outage of Webre-Richard 500 kV)

Date: 9/2/98

Curtailments: The following curtailments were made of SPP schedules:

From	To	Priority	Original Amount	Amount Curtailed	Implementation Time	NERC Tag ID
MPS	CSWS	NW-4	50	50	1400	MPS_SPM131H001_CSWS



I. INTRODUCTION

The purpose of this study was to determine the preferred option for connecting (either physically or contractually) the UtiliCorp United (UCU) electrical transmission system with the Empire District (EDE) electrical transmission system. Four options for achieving this objective are discussed in this report.

Two categories of options were considered. The first category of options were options that were actual physical interconnections between the two systems. The second category of options were options that involved a contractual interconnection or a combination of physical/contractual interconnections.

Each option is discussed separately in the body of this report with regards to contingency analysis, estimated costs, and MW losses.

II. CONTINGENCY ANALYSIS

Loadflow models were created to simulate the existing transmission system. Initial loadflows were based on the year 2003 Southwest Power Pool summer peak models. Contingency analysis was performed for the existing system and each option to examine the transmission system's ability to perform adequately during a single-contingency situation.

The following contingencies were analyzed:

All facilities in the MPS system

All facilities in the EDE system

All facilities in the KCPL system

All facilities 115kV and above in the WR system

Relevant facilities in the AEC system

All facilities 115kV and above in the MEC system

All other facilities that are normally included in EDE contingency analysis studies

In total, 1406 contingencies were analyzed.

Percentage overloads as discussed in this report refer to the line's emergency rating.

III. EXISTING SYSTEM

A. System Configuration

The existing EDE transmission system (shown on the following page) has two 161kV lines and two 69kV lines that extend north towards the UCU system and provide possible interconnection points.

One possible interconnection location into the EDE system is at the Asbury Generation Station near Asbury, Missouri. There are three 161kV lines exiting this generating station. One line travels southwest to Carthage. Another line travels southwest to Joplin. The other 161kV line travels north to interconnect with the Western Resources system.

A second possible interconnection is location at the end of a 161kV line near Burns, Missouri. This substation is a 161/69kV substation fed from a radial 161kV line (795 ACSR) coming from Aurora. However, there are four 69kV lines exiting this substation that interconnect within the EDE system.

The last two possible interconnection points are normally open 69kV connections with MPS near Lamar (4/0 ACSR) and Warsaw (1/0 Cu). These interconnections are normally open because the Empire 69kV and the MPS are electrically out-of-phase by 30 degrees.

B. Loadflow and Contingency Analysis

The base case loadflow for the existing system (normal transfer scenario) is shown on page **Error! Bookmark not defined.**. The base case was based on a year 2003 Southwest Power Pool case with changes made to account for the addition of the Pleasant Hill plant and recommended transmission system changes due to the St. Joseph Light & Power merger. Nevada generation was off in the base case. Asbury generation was on in the base case and contributing 186 MW of generation.

The two most noticeable areas of concern regarding portions of the system that are impacted by this study are the Nevada area in the UCU system and the Burns area in the EDE system. Voltages in the Nevada area dropped as low as 87.7% (at Adrian) for outages on the 161kV line between Archie and Nevada. Voltages in the Burns area dropped as low as 87.7% an outage of the 161kV line to Burns.

C. Losses

Summer peak losses for the base case totaled 64.8 MW for the UCU and EDE systems.

IV. OPTION 1 - Nevada to Asbury 161kV Line

A. System Configuration

The first option considered for connecting the UCU and EDE electrical systems involved the construction of a 161kV line from near UCU's Nevada Substation to EDE's Asbury Generating Station (see diagram on the following page). This line was estimated to be 35 miles long and was modeled using 1192 ACSR conductor (312 MVA capability).

B. Estimated Cost

The estimated cost for this option is \$14.84 million. The costs for this option are broken down as follows:

Construct a new 161kV Substation south of the existing Nevada Substation - \$2.5 million

Add a 161kV breaker position at the existing Asbury Substation - \$1.5 million

Construct a 161kV line (1192 ACSR) from the new Nevada Substation to Asbury - \$10.84 million

Utilizing a leveled annual carrying charge of 15.4%, the cost of this option is \$2.28 million annually and \$7,300 / MW-year (for 312 MW of capacity).

C. Loadflow and Contingency Analysis

The 2003 summer peak model showed 35.6 MW flowing from the Asbury Station to the Nevada Substation (see page [Error! Bookmark not defined.](#)). Flow from Archie Junction to the Nevada Substation was reduced by 14 MW. Voltages at the Nevada Substation improved from 97.3% to 99.2%.

The primary result of the addition of this line was the elimination of first contingency voltage problems in the Nevada area. In the base case, an outage of any section of the 49 mile line from Archie to Nevada at peak caused low voltages (as low as 87.7%) in the Nevada area. The addition of the line from Nevada to Asbury completely eliminated these single contingency voltage problems.

D. Losses

Losses for this option totaled 63.5 MW for the UCU and EDE systems. This is a peak reduction of 1 MW from the base case losses.

ON

Add Breaker
at Nevada

Construct 161kV line from
Nevada to Asbury

BOURSON

CRAWFORD

Add Breaker
at Asbury

CHEROKEE

BARTON

JASPER

V. OPTION 2 - Sedalia to Burns 161kV Line

A. *System Configuration*

The second option considered for connecting the UCU and EDE electrical systems involved the construction of a 161kV line from UCU's Sedalia West Substation to EDE's Bolivar-Burns Substation (see diagram on the following page). This line was estimated to be 90 miles long and was modeled using 1192 ACSR conductor (312 MVA capability).

B. *Estimated Cost*

The estimated cost for this option is \$30.87 million. The costs for this option are broken down as follows:

Upgrade to 161kV Substation at Bolivar-Burns Substation - \$1.5 million

Add a 161kV breaker position at Sedalia West Substation - \$1.5 million

Construct a 161kV line from Sedalia West to Bolivar-Burns Substation - \$27.87 million

Utilizing a levelized annual carrying charge of 15.4%, the cost of this option is \$4.75 million annually and \$15,200 / MW-year (for 312 MW of capacity).

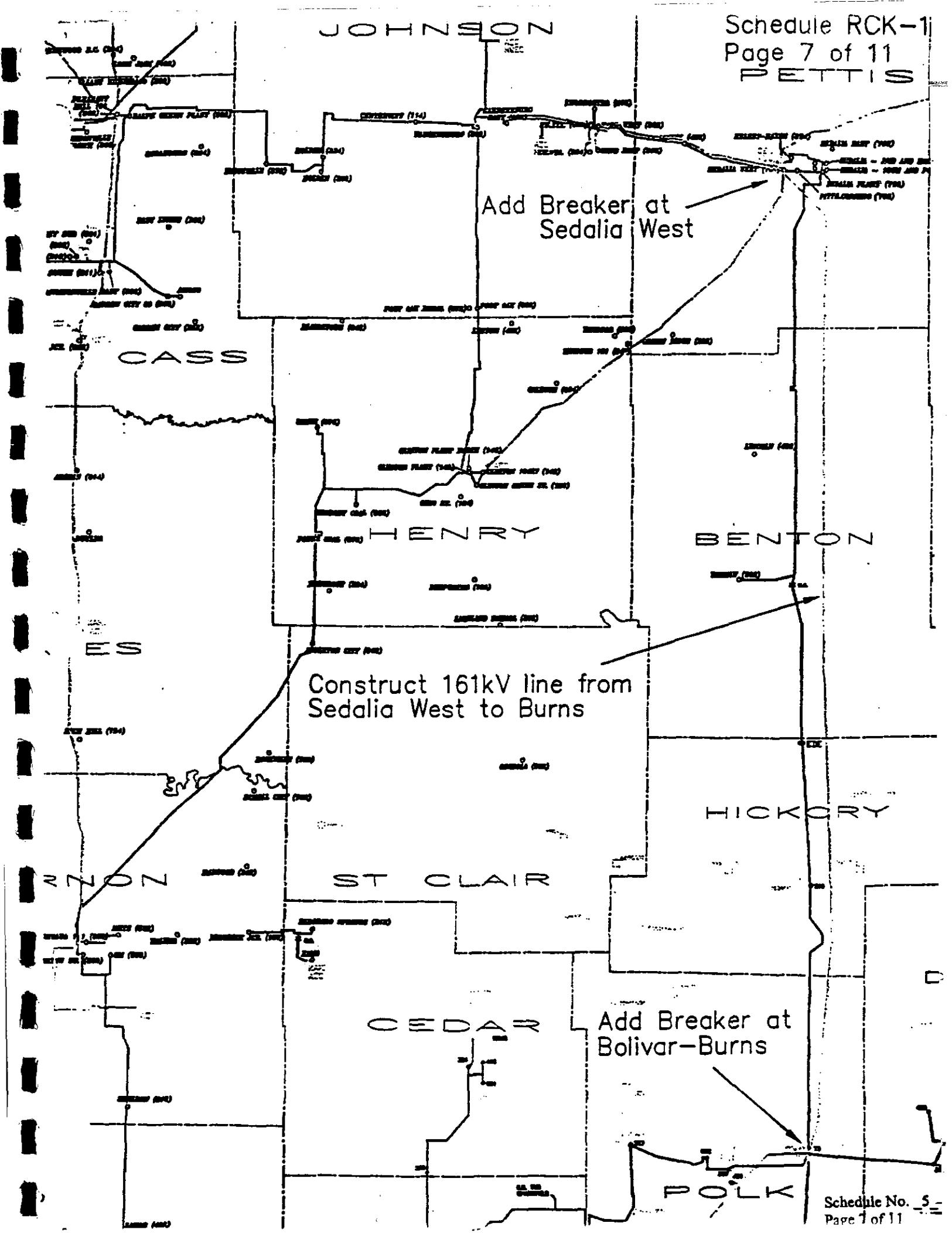
C. *Loadflow and Contingency Analysis*

The 2003 summer peak model showed 31.6 MW flowing from Sedalia West Substation to the Bolivar-Burns Substation (see page Error! Bookmark not defined.). The voltage in the Burns area improved from 97.7% to 99.1%.

The primary result of the addition of this line was the elimination of first contingency voltage problems in the Bolivar-Burns area. In the base case, an outage of any section of the 30 mile line Dadeville East Substation to the Bolivar-Burns Substation caused low voltages (as low as 87.7% at Bolivar South Substation). The addition of the line from Sedalia West to the Bolivar-Burns Substation completely eliminated these single contingency voltage problems.

D. *Losses*

Losses for this option totaled 65 MW for the UCU and EDE systems. This is an increase of 0.2 MW over the base case losses.



VI. OPTION 3 - Two 69kV Interconnections

A. System Configuration

The third option considered for connecting the UCU and EDE electrical systems involved the addition of two 69kV substations at existing 69kV interconnection points between the UCU and EDE transmission systems. Currently these 69kV interconnections are open because the UCU and EDE systems are 30 degrees out of phase. The new 69kV substations would include 69/69kV phase shifting transformers to bring the two systems into phase. One substation would be built at the 69kV interconnection near Warsaw and EDE's Hermitage Substation and one substation would be built at the 69kV interconnection near Lamar and EDE's Boston Substation (see diagram on the following page). The addition of both of these substations would add approximately 63 MW of interconnection capability at 69kV.

B. Estimated Cost

The estimated cost for this option is \$3.5 million (\$1.75 million for each substation).

Utilizing a levelized annual carrying charge of 15.4%, the cost of this option is \$0.54 million annually and \$8,600 / MW-year (for 63 MW of capacity).

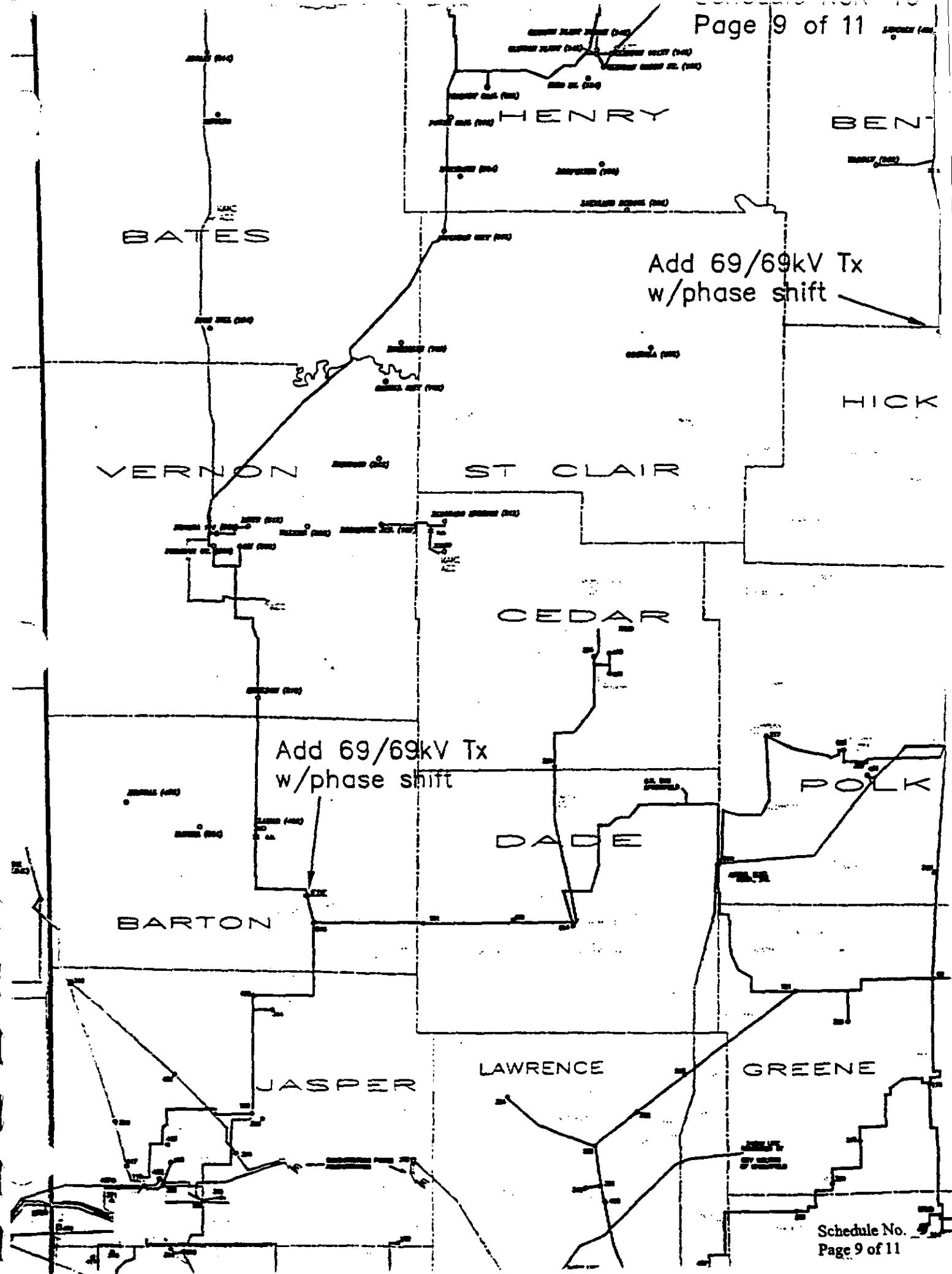
C. Loadflow and Contingency Analysis

The flow on the transformer near Lamar was 3.9 MW from Boston Substation (see page Error! Bookmark not defined.). The flow on the transformer near Warsaw was 0.3 MW from Hermitage Substation. Voltage at Warsaw improved from 94.7% to 97%. Voltage at Lamar increased from 97.9% to 99.2%. Voltages in the EDE system decreased slightly.

This option provided backup to the Lamar area for outages on the 69kV line from Nevada to Lamar. It also provided off-peak backup to the Warsaw and Hermitage areas for outages of the 69kV radial lines serving those areas. Currently these areas have no second feed and are served radially.

D. Losses

Losses for this option totaled 64.7 MW, a decrease of 0.1 MW from the base case.



VII. OPTION 4 - Purchasing Firm Transmission

A. System Configuration

This option involves no changes to the existing transmission system. Necessary transmission capacity would be purchased (from either KCPL or Western Resources).

B. Estimated Cost

It is estimated that 300 MW of transmission capacity is necessary to operate the two systems as one control area and to be able to perform economic dispatch between both systems.

KCPL's current annual revenue requirement for network service is \$42,101,320 (includes the Scheduling & Dispatching charge) plus payment for energy losses. If the KCPL system load is estimated at 3,402 MW (2003 summer load), then the load ratio share of 300 MW of transmission capacity is

$$300 / 3,402 \times \$42,101,320 = \$3.7 \text{ million annually (plus energy losses).}$$

The calculation for Western Resources is

$$300 / 5,400 \text{ (estimated 2003 summer peak)} \times \$66,491.775 \text{ (annual revenue requirement)} \\ = \$3.7 \text{ million annually.}$$

The cost for this option is roughly \$3.7 million annually or \$12,300 / MW-year (300 MW capacity).

C. Loadflow and Contingency Analysis

Because this option does not require any changes to the existing system, the transmission system is unaffected compared to the base case.

D. Losses

Because this option does not require any changes to the existing system, losses for this option are equivalent to the base case.

VIII. SUMMARY

A. Comparing the Options

Determining the preferred method of connecting the UCU and EDE transmission systems from the four options considered in this report is a simple matter given the estimated costs and benefits of each option. Of the four options, Option 1 (Nevada - Asbury) has the lowest costs (see summary of costs on page 13) and provides a benefit to the transmission system. Option 2 (Sedalia - Burns) also provides roughly equivalent benefits to the transmission system, but has substantially higher costs. Option 3 does provide some benefits to the transmission system, but does not provide the necessary 300 MW of interconnection capability that is considered necessary between the two systems. It also has a higher cost on a \$ per MW-Year basis than Option 1. Option 4 (buying transmission capacity) provides no benefits to the transmission system and has substantially higher costs than Option 1.

B. Recommendation

The recommended course of action is to construct a 161kV line from a location south of the existing UCU Nevada Substation to the EDE Asbury generating station (see diagram on page 5).

C. Additional Considerations of the Preferred Option

There are least two modifications that can be made to the preferred option that need to be considered.

1. Increasing the Capacity of the Conductor - Replacing the proposed 1192 ACSR conductor with 795 bundled ACSR conductor will increase the capacity of the line from 312 MVA to 510 MVA. If at some point in the future a greater amount of capacity between the two systems is required, it will be more expensive on a \$/MW-Year basis to increase the capacity beyond the 312 MVA given by the 1192 ACSR. Additional capacity could be added in the future by completing the 69kV interconnections as described in Option 3 (63 MW) or by purchasing firm capacity as described in Option 4. The difference in costs between these two conductor types is still being evaluated.

Flow on the Nevada - Asbury line increases by approximately 14% at peak when 795 bundled ACSR conductor is used (as opposed to the 1192 ACSR conductor).

2. Terminating the Connection at Nevada Substation Instead of Further South - Another possibility for this line would have the line terminating at Nevada Substation (see diagram on page 12), instead of further south (as shown on page 5). Originally, the Nevada - Asbury line was considered from the southern location, because it is approximately 7 miles closer to Asbury. Terminating this line at the existing Nevada Substation would add 7 miles of 161kV construction to the cost. However, costs would also be reduced by not requiring the construction of a new 161kV substation. An additional breaker position would be needed at the existing Nevada Substation, if it is decided to terminate the line there. The difference in costs between these two options is still being evaluated.

If the line is terminated at the existing Nevada Substation, the reliability to Nevada increases slightly. The existing substation would then have three 161kV lines exiting the station and would eliminate the possibility of a radial feed to the substation due to a single 161kV line outage.



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FEDERAL ENERGY REGULATORY COMMISSION

WASHINGTON, D.C. 20426

In Reply Refer To:
Docket Nos. EC00-27-000
and EC00-28-000

April 17, 2000

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Dear Gentlemen:

The purpose of this letter is to request additional information and an amended competitive analysis that will allow the Commission to expedite further consideration of your application pursuant to section 203 of the Federal Power Act.

Your application, filed November 11, 1999, included testimony that described Applicants' possible plans to either physically interconnect the post-merger operating companies or to integrate operations by taking network transmission service under a Regional Transmission Organization's tariff. (Direct Testimony of Richard C. Kreul at 11 - 13.) However testimony filed in support of your Appendix A analysis concluded "it would be too speculative to try to analyze future interconnections that might or might not result from the proposed mergers." (Direct Testimony of Mark W. Frankena at 48.) On February 11, 2000, the Applicants informed the Commission for the first time that the Applicants had applied on December 6, 1999 to the Southwest Power Pool (SPP) for network service. (Consolidated Response to Motions to Intervene, Motions for Clarification, Requests for Hearing, and Protests at 7.) On March 10, 2000, the Applicants stated for the first time that integration would definitely occur. "If UtiliCorp cannot come to

terms with the SPP to participate for all purposes under the SPP tariff, the merged company will have to proceed with integration by making its own independent investments in new transmission facilities." (March 10, 2000, Request of Applicants for Leave to Clarify the Record at 5-6.)

In light of the above, it now appears certain that Applicants will integrate their systems but are still contemplating different ways in which to accomplish such integration. The integration of the merging systems could materially change the results of the initial competitive analysis filed by the Applicants as part of their application. The Commission cannot evaluate the competitive effects of the proposed merger without incorporating the effects of such integration and the application does not contain the information necessary to do so. Therefore, please amend your competitive analysis to reflect the integration of the Applicants' systems by: (1) using the SPP tariff, (2) making independent investments in new transmission facilities, and (3) any other mechanism under consideration.

In addition, transactions which may be relevant to the proposed merger's competitive effect have been announced or have taken place since your application was filed. For example, according to UtiliCorp's December 8, 1999 "News Release," UtiliCorp's wholly-owned subsidiary Aquila Energy Corporation (Aquila) signed a 12 year contract to supply natural gas to the American Public Energy Agency. On March 14, 2000, it was announced that Aquila had acquired the marketing assets of U.S. Gas Transportation, Inc. On March 14, 2000, it was announced that Aquila had acquired the real estate and obtained the right to proceed with constructing a gas storage facility in west Texas. Please explain in detail these and any other recent transactions that are relevant to the merger's competitive effect and revise your competitive analysis to reflect such transactions. If the transactions are not relevant to the competitive effect of the merger, than please explain why not.

The changes in Applicant's integration plans and transactions announced subsequent to the filing of your merger application constitute significant changes in your merger proposal requiring revisions to your competitive analysis, as described above. Consistent with the Merger Policy Statement, such changes will start the Commission's merger review process over and will require that a new notice be issued. Your response to this order must be filed within twenty one (21) days of the date of this order. In addition, please provide a copy of your response to all parties that have requested intervention in this proceeding. Those parties will have twenty one (21) days from the date your response is received by the Commission to file comments on the submission.

This order is issued pursuant to 18 CFR 375.307 and is interlocutory. This order is not subject to rehearing pursuant

to 18 CFR 385.713. Please submit seven copies of your response to this order. Six copies of your response should be sent to:

Federal Energy Regulatory Commission
Office of the Secretary
888 First Street, N.E.
Washington, DC 20426

One copy should be sent to:

Federal Energy Regulatory Commission
ATTN: Michael C. McLaughlin, Director
Division of Corporate Applications
Office of Markets, Tariffs and Rates
888 First Street, NE
Washington, DC 20426

Sincerely,

Michael C. McLaughlin, Director
Division of Corporate
Applications





SPP
*Southwest
Power Pool*

System Impact Study for
Transmission Service Requests
from

UTILICORP UNITED

Missouri Public Service
Empire District Electric Co.
St. Joseph Light and Power Co.

SPP Transmission Planning
April 21, 2000

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I. Executive Summary

Southwest Power Pool evaluated the impacts of the 10-year network service requests for UtiliCorp (OASIS #163522-MPS, #163526-EDE, #163530-SJLP). Multiple power flow model cases were developed and reviewed during the analysis portion of the study. The engineering results of the study show that facility upgrades and system improvements are required to accommodate the requested transmission service from the designated resources to the designated load.

The study was performed in two parts. The first part studied the existing system representation in the power flow model to determine what thermal overloads and voltage violations are present. All potential violations were reviewed with the transmission owner and a summary of these results is provided in Sections V and VI. UtiliCorp and SPP Criteria were used to determine what violations exist.

The second part studied the transfer of power between the three existing control areas. This determines the capability of the SPP transmission system to handle the new dispatch alternatives posed when the three control areas are combined. Selecting two exporting control areas and transferring power to the remaining control area was the technique used. Generator sensitivity analysis was then performed on the exporting and importing areas separately creating 2 runs for each of the 3 control areas in every power flow model. This provides a comprehensive review of possible generation dispatch for the power flow model represented. An attached Excel spreadsheet shows the summary results of the study. UtiliCorp removed its facilities from the list because of redispatch solutions available to alleviate overloads. The analysis shows that some facilities are required to allow for 200 MW transfers between the existing control areas.

II. Introduction

UTILICORP UNITED has requested multi-year Network transmission service on the SPP OASIS (163522-MPS, 163526-EDE, 163530-SJLP). There are three operating companies in Missouri: MIPU, SJPL, EMDE. The three companies currently operate independently but for the purposes of this study are to be considered one control area. Therefore, the three System Impact Study requests (SPP-2000-006, SPP-2000-008, SPP-2000-009) were combined into one study. The period of the request is from 10/01/00 to 10/01/10. This system impact study was required in order to determine the capability of the transmission system for the requested period.

The principal objective of this study is to determine if the SPP transmission system is capable of supplying network service to the UtiliCorp companies in Missouri operating as a single control area.

III. Study Methodology

The analysis was done to ensure current SPP Criteria and NERC Planning Standards requirements are fulfilled. The Southwest Power Pool (SPP) meets the NERC Planning Standards, Table No. 1, which provides the requirements related to thermal overloads with a contingency. It requires that all facilities be within emergency ratings after a contingency.

1. Description

This study was done in two different parts. The first part was to study the 12 base cases to determine existing thermal overload and voltage problems. The SPP base case models were modified to reflect the most current modeling information. One branch or selected multiple branches were removed to study the affect on the system. Thermal overloads along with high and low voltages were recorded during the contingency analysis using AC solution and reported in Section V and VI.

The second part was done using PTI MUST to see what problems showed up for transfers up to 200 MW between the three existing Missouri companies. The MUST program performs a DC linear analysis of transfers. A generation sensitivity analysis (GSA) feature in MUST was used for determining what levels of transfers can be achieved between the existing three control areas. The GSA uses all available generation in the exporting control area as a base case transfer. Then each unit or groups of units are tested to determine the minimum level of transfer that can be obtained without any thermal overloads. This provides a complete review of all possible dispatch situations for transfers between the control areas. Overloads in the base case were ignored in the MUST runs since they are covered in the ACCC analysis portion in part one. The attached Excel spreadsheet summarizes the results of the study.

2. Model Updates

Cases for year 2000 Fall Peak, 2000/01 Winter Peak, 2001 April, 2001 Spring Peak, 2001 Summer Peak, 2001 Fall Peak, and 2001/02 Winter Peak, 2004 Summer Peak, 2004/05 Winter Peak, 2006 Summer Peak, 2006/07 Winter Peak, and 2010 Summer Peak were included. These cases were modified to reflect future firm transfers not already included in the January 2000 base case series.

3. Study Analysis

Using the created models and the ACCC function of PSS\|E, single and select double contingency outages were analyzed. This function uses a full AC solution technique.

PSS/E CHOICES IN RUNNING LOAD FLOW PROGRAM AND ACCC

BASE CASES:

Solutions - Fixed slope decoupled Newton-Raphson solution (FDNS)

A. Tap adjustment - Stepping

B. Area interchange control - Tie lines only

C. Var limits - Apply immediately

D. Solution options - X Phase shift adjustment

- Flat start

- Lock DC taps
- Lock switched shunts

ACCC CASES:

Solutions - AC contingency checking (ACCC)

- A. MW mismatch tolerance -1.0
- B. Contingency case rating - Rate B
- C. Percent of rating - 100
- D. Output code - Summary
- E. Min flow change in overload report - 1mw
- F. Excl cases w/ no overloads form report - YES
- G. Exclude interfaces from report - NO
- H. Perform voltage limit check - YES
- I. Elements in available capacity table - 60000
- J. Cutoff threshold for available capacity table - 99999.0
- K. Min. contng. case Vltg chng for report - 0.02
- L. Sorted output - None

Newton Solution:

Tap adjustment - Stepping

Area interchange control - Tie lines only

Var limits - Apply automatically

Solution options - Phase shift adjustment

- Flat start
- Lock DC taps
- Lock switched shunts

IV. BRANCH OVERLOADS

BRANCH OVERLOAD TABLE

2000 FALL PEAK, MISSOURI PUBLIC SERVICE - AREA 540

X----- MULTI-SECTION LINE GROUPINGS ----X FROM NAME TO NAME CKT PRE-CNT POST-CNT RATING PERCENT
 59202 [SIBLEY 5161.00] TO 59263 [SIBLEY 269.000] CKT 1 59262 LIBERTY269.0 59263*SIBLEY 269.0 1 37.2 83.3 78.0 103.1 reduce generation

2000 FALL PEAK, EMPIRE DISTRICT ELECTRIC - AREA 544

NONE

2000 FALL PEAK, ST. JOSEPH LIGHT AND POWER - AREA 679

NONE

2000 WINTER PEAK, MISSOURI PUBLIC SERVICE - AREA 540

NONE

2000 WINTER PEAK, EMPIRE DISTRICT ELECTRIC - AREA 544

X----- MULTI-SECTION LINE GROUPINGS ----X FROM NAME TO NAME CKT PRE-CNT POST-CNT RATING PERCENT
 59568 [STK324 269.000] TO 59616 [STK631J269.000] CKT 1 59545*FRP217 269.0 59635 FRP217 134.5 1 3.2 7.3 5.0 145.6 provide solutions
 59568 [STK324 269.000] TO 59638 [STK324 134.500] CKT 1 59545*FRP217 269.0 59635 FRP217 134.5 1 3.2 7.2 5.0 145.0 provide solutions
 59614 [STK418 269.000] TO 59614 [SK631CJ269.000] CKT 1 59545*FRP217 269.0 59635 FRP217 134.5 1 3.2 5.2 5.0 103.5 provide solutions
 59637 [HUM308 134.500] TO 59641 [CAP304 134.500] CKT 1 59545*FRP217 269.0 59635 FRP217 134.5 1 3.2 7.0 5.0 140.7 provide solutions
 59638 [STK324 134.500] TO 59641 [CAP304 134.500] CKT 1 59545*FRP217 269.0 59635 FRP217 134.5 1 3.2 7.3 5.0 145.1 provide solutions
 59605 [STK418 269.000] TO 96118 [5STKAEC 161.00] CKT 1 59545*FRP217 269.0 59635 FRP217 134.5 1 3.2 5.2 5.0 103.4 provide solutions

2000 WINTER PEAK, ST. JOSEPH LIGHT AND POWER - AREA 679

NONE

2001 APRIL MINIMUM, MISSOURI PUBLIC SERVICE - AREA 540

NONE

2001 APRIL MINIMUM, EMPIRE DISTRICT ELECTRIC - AREA 544

NONE

2001 APRIL MINIMUM, ST. JOSEPH LIGHT AND POWER - AREA 679

NONE

BRANCH OVERLOAD TABLE

2001 FALL PEAK, MISSOURI PUBLIC SERVICE - AREA 540
2001 FALL PEAK, EMPIRE DISTRICT ELECTRIC - AREA 544
2001 FALL PEAK, ST. JOSEPH LIGHT AND POWER - AREA 679

NONE
NONE
NONE

2001 SUMMER PEAK, MISSOURI PUBLIC SERVICE - AREA 540

MULTI-SECTION LINE GROUPINGS		FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT	
59202	[SIBLEY 5161.00]	TO 59263	[SIBLEY 269.000]	CKT 1	59262 LIBERTY269.0	59263*SIBLEY 269.0	1	46.7	88.5	78.0	110.1 Reduce Generation
59206	[PRALEE 5161.00]	TO 59233	[LEESUM 5161.00]	CKT 1	59225 PHILL 5 161	59243*LKWINGBS 161	1	231.0	323.0	294.0	109.1 Line Rebuild
59208	[NEVADA 5161.00]	TO 59308	[NEVADA 269.000]	CKT 1	59208*NEVADA 5 161	59308 NEVADA 269.0	2	28.0	54.9	50.0	109.8 Generation
59208	[NEVADA 5161.00]	TO 59308	[NEVADA 269.000]	CKT 2	59208*NEVADA 5 161	59308 NEVADA 269.0	1	31.8	55.9	50.0	111.7 Generation
59209	[SEDALIA5 5161.00]	TO 59272	[SEDS 269.000]	CKT 1	59209*SEDALIA5 161	59271 SEDN 269.0	1	32.4	50.3	50.0	100.7 Shift Load to 161
59218	[GRNW 5161.00]	TO 59233	[LEESUM 5161.00]	CKT 1	59224 LNGVW 5 161	59249*HOOKRD 5 161	1	193.7	305.0	294.0	103.6 Line Rebuild
					59225 PHILL 5 161	59243*LKWINGBS 161	1	231.0	343.4	294.0	116.1 Line Rebuild
					59243 LKWINGBS 161	59249*HOOKRD 5 161	1	212.8	323.6	294.0	109.9 Line Rebuild
59224	[LNGVW 5161.00]	TO 59249	[HOOKRD 5161.00]	CKT 1	59206 PRALEE 5 161	59233*LEESUM 5 161	1	172.1	259.5	245.0	105.3 Line Rebuild
59224	[LNGVW 5161.00]	TO 59282	[LNGVW 269.000]	CKT 1	59210*MARTCTY5 161	59287 MARTCTY269.0	1	32.4	50.4	50.0	100.8 Acceptable
59225	[PHILL 5161.00]	TO 59243	[LKWINGBS5161.00]	CKT 1	59206*PRALEE 5 161	59233 LEESUM 5 161	1	192.1	274.5	245.0	112.1 Line Rebuild
59225	[PHILL 5161.00]	TO 59280	[PHILL 269.000]	CKT 1	59228*WBURGE 5 161	59269 WBURGE 269.0	1	41.0	50.7	50.0	101.5 Generation
					59239*HSNVL 5 161	59295 HSNVL 269.0	1	43.5	72.4	50.0	144.9 Generation
					59284 GRDVWTP269.0	59288*RGAFB 269.0	1	31.3	61.2	53.0	123.2 Generation
					59288 RGAFB 269.0	59289*BELTON 269.0	1	26.8	56.2	53.0	114.0 Generation
					59289 BELTON 269.0	59290*BELTON269.0	1	22.1	51.0	53.0	104.7 Generation
59239	[HSNVL 5161.00]	TO 59295	[HSNVL 269.000]	CKT 1	59225*PHILL 5 161	59280 PHILL 269.0	1	78.0	102.1	100.0	102.1 Generation
59242	[CLINTON5161.00]	TO 59303	[CLINTON269.000]	CKT 1	59242*CLINTON5 161	59303 CLINTON269.0	2	33.5	52.6	50.0	105.2 Acceptable
59242	[CLINTON5161.00]	TO 59303	[CLINTON269.000]	CKT 2	59242*CLINTON5 161	59303 CLINTON269.0	1	33.4	52.9	50.0	105.8 Acceptable
59243	[LKWINGBS161.00]	TO 59249	[HOOKRD 5161.00]	CKT 1	59206 PRALEE 5 161	59233*LEESUM 5 161	1	172.1	267.8	245.0	108.8 Line Rebuild
59279	[RGREEN 269.000]	TO 59280	[PHILL 269.000]	CKT 1	59239*HSNVL 5 161	59295 HSNVL 269.0	1	43.5	60.4	50.0	120.8 Generation
					59296 HSNVLSW269.0	59297*HSNVLN 269.0	1	16.7	44.2	41.0	111.1 Generation
59284	[GRDVWTP269.000]	TO 59288	[RGAFB 269.000]	CKT 1	59239*HSNVL 5 161	59295 HSNVL 269.0	1	43.5	55.5	50.0	111.1 Generation
59288	[RGAFB 269.000]	TO 59289	[BELTON 269.000]	CKT 1	59239*HSNVL 5 161	59295 HSNVL 269.0	1	43.5	53.5	50.0	107.0 Acceptable
59289	[BELTON 269.000]	TO 59290	[BELTON269.000]	CKT 1	59239*HSNVL 5 161	59295 HSNVL 269.0	1	43.5	51.7	50.0	103.3 Acceptable
59242	[CLINTON5161.00]	TO 96071	[SCLINTN 161.00]	CKT 1	59228*WBURGE 5 161	59269 WBURGE 269.0	1	41.0	65.8	50.0	131.6 Accept Risk
					59268 WBURGP 269.0	59300*POSTOAK269.0	1	7.7	43.7	46.0	105.1 Accept Risk

2001 SUMMER PEAK, EMPIRE DISTRICT ELECTRIC - AREA 544

MULTI-SECTION LINE GROUPINGS		FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT	
59480	[MON383 5161.00]	TO 59591	[MON383 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	120.2	168.3	157.0	109.5 re-conductor

2001 SUMMER PEAK, ST. JOSEPH LIGHT AND POWER - AREA 679

2001 SPRING PEAK, MISSOURI PUBLIC SERVICE - AREA 540

MULTI-SECTION LINE GROUPINGS		FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT	
59202	[SIBLEY 5161.00]	TO 59263	[SIBLEY 269.000]	CKT 1	59262 LIBERTY269.0	59263*SIBLEY 269.0	1	41.7	92.4	78.0	114.7 Reduce Generation

BRANCH OVERLOAD TABLE

2001 SPRING PEAK, EMPIRE DISTRICT ELECTRIC - AREA 544

NONE

2001 SPRING PEAK, ST. JOSEPH LIGHT AND POWER - AREA 679

NONE

2001 WINTER PEAK, MISSOURI PUBLIC SERVICE - AREA 540

NONE

2001 WINTER PEAK, EMPIRE DISTRICT ELECTRIC - AREA 544

MULTI-SECTION LINE GROUPINGS			FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT		
59568	[STK324 269.000]	TO 59616	[STK631J269.000]	CKT 1 59545*	FRP217	269.0	59635	FRP217	134.5 1	3.4	7.3	5.0	146.3 provide solutions
59568	[STK324 269.000]	TO 59638	[STK324 134.500]	CKT 1 59545*	FRP217	269.0	59635	FRP217	134.5 1	3.4	7.3	5.0	145.6 provide solutions
59605	[STK418 269.000]	TO 59614	[SK631CJ269.000]	CKT 1 59545*	FRP217	269.0	59635	FRP217	134.5 1	3.4	5.0	5.0	100.6 provide solutions
59637	[HUM30B 134.500]	TO 59641	[CAP304 134.500]	CKT 1 59545*	FRP217	269.0	59635	FRP217	134.5 1	3.4	7.1	5.0	141.5 provide solutions
59638	[STK324 134.500]	TO 59641	[CAP304 134.500]	CKT 1 59545*	FRP217	269.0	59635	FRP217	134.5 1	3.4	7.3	5.0	145.9 provide solutions
59605	[STK418 269.000]	TO 96118	[5STKAEC 161.00]	CKT 1 59545*	FRP217	269.0	59635	FRP217	134.5 1	3.4	5.0	5.0	100.5 provide solutions

2001 WINTER PEAK, ST. JOSEPH LIGHT AND POWER - AREA 679

NONE

2004 SUMMER PEAK, MISSOURI PUBLIC SERVICE - AREA 540

MULTI-SECTION LINE GROUPINGS			FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT
59202	[SIBLEY 5161.00]	TO 59263	[SIBLEY 269.000]	CKT 1 59262	LIBERTY269.0	59263*SIBLEY	269.0 1	44.9	87.5	78.0	108.8 Generation
59208	[NEVADA 5161.00]	TO 59308	[NEVADA 269.000]	CKT 1 59208*	NEVADA 5 161	59308	NEVADA 269.0 2	29.4	57.1	50.0	114.2 Acceptable
59208	[NEVADA 5161.00]	TO 59308	[NEVADA 269.000]	CKT 2 59208*	NEVADA 5 161	59308	NEVADA 269.0 1	33.4	58.1	50.0	116.3 Acceptable
59209	[SEDALIAS5161.00]	TO 59271	[SEDN 269.000]	CKT 1 59228*	WBURGE 5 161	59269	WBURGE 269.0 1	46.5	54.2	50.0	108.5 Acceptable
59209	[SEDALIA5161.00]	TO 59272	[SEDS 269.000]	CKT 1 59209*	SEDALIAS5 161	59271	SEDN 269.0 1	33.5	52.8	50.0	105.6 Acceptable
				59228*	WBURGE 5 161	59269	WBURGE 269.0 1	46.5	52.5	50.0	105.1 Acceptable
59225	[PHILL. 5161.00]	TO 59280	[PHILL. 269.000]	CKT 1 59228*	WBURGE 5 161	59269	WBURGE 269.0 1	46.5	52.7	50.0	105.5 Acceptable
				59239*	HSNVL 5 161	59295	HSNVL 269.0 1	37.5	54.2	50.0	108.4 Acceptable
59229	[ODESSA 5161.00]	TO 59267	[ODESSA 269.000]	CKT 1 59228*	WBURGE 5 161	59269	WBURGE 269.0 1	46.5	50.7	50.0	101.3 Acceptable
59232	[LEX161 5161.00]	TO 59264	[LEX69 269.000]	CKT 1 59228*	WBURGE 5 161	59269	WBURGE 269.0 1	46.5	50.9	50.0	101.9 Acceptable
59242	[CLINTON5161.00]	TO 59303	[CLINTON269.000]	CKT 1 59228*	WBURGE 5 161	59269	WBURGE 269.0 1	46.5	51.7	50.0	103.4 Acceptable
				59242*	CLINTONS 161	59303	CLINTON269.0 2	35.7	56.0	50.0	111.9 Acceptable
59242	[CLINTON5161.00]	TO 59303	[CLINTON269.000]	CKT 2 59228*	WBURGE 5 161	59269	WBURGE 269.0 1	46.5	51.6	50.0	103.2 Acceptable
				59242*	CLINTONS 161	59303	CLINTON269.0 1	36.1	56.7	50.0	113.4 Acceptable
59264	[LEX69 269.000]	TO 59265	[LEXNTON269.000]	CKT 1 59228*	WBURGE 5 161	59269	WBURGE 269.0 1	46.5	50.9	50.0	101.9 Acceptable
59268	[WBURGP 269.000]	TO 59278	[HOLDEN 269.000]	CKT 1 59228*	WBURGE 5 161	59269	WBURGE 269.0 1	46.5	50.4	50.0	100.9 Acceptable
59278	[HOLDEN 269.000]	TO 59279	[RGREEN 269.000]	CKT 1 59228*	WBURGE 5 161	59269	WBURGE 269.0 1	46.5	57.7	50.0	115.4 Acceptable
59280	[PHILL. 269.000]	TO 59290	[BELTONS269.000]	CKT 1 59284	GRDVWTP269.0	59288*	RGAFB 269.0 1	24.9	50.9	53.0	102.6 Upgrade
				59292*	ANCONDA269.0	59293	HSNVLW 269.0 1	16.3	33.3	32.0	106.2 Upgrade
59300	[POSTOAK269.000]	TO 59301	[CLNTPLT269.000]	CKT 1 59228*	WBURGE 5 161	59269	WBURGE 269.0 1	46.5	50.4	50.0	100.8 Acceptable
59242	[CLINTON5161.00]	TO 96071	[5CLINTN 161.00]	CKT 1 59228*	WBURGE 5 161	59269	WBURGE 269.0 1	46.5	73.0	50.0	146.0 Accept Risk
				59268	WBURGP 269.0	59300*	POSTOAK269.0 1	4.4	50.2	46.0	121.8 Accept Risk
				59300	POSTOAK269.0	59301*	CLNTPLT269.0 1	9.3	39.1	46.0	101.3 Accept Risk

BRANCH OVERLOAD TABLE

2004 SUMMER PEAK, EMPIRE DISTRICT ELECTRIC - AREA 544

MULTI-SECTION LINE GROUPINGS				FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT
59472	[TIP292 5161.00]	TO 59483	[JOP389 5161.00]	CKT 1	59483*JOP389	5 161	59592 JOP389	269.0 1	57.8	75.4	75.0	100.6 increase capacity
59480	[MON383 5161.00]	TO 59691	[MON383 269.000]	CKT 1	59468 AUR124	5 161	59480*MON383	5 161 1	119.3	173.5	157.0	113.1 reconductor
59483	[JOP389 5161.00]	TO 59607	[JOP422 5161.00]	CKT 1	59483*JOP389	5 161	59592 JOP389	269.0 1	57.8	77.0	75.0	102.7 increase capacity
59568	[STK324 269.000]	TO 59616	[STK631J269.000]	CKT 1	59545*FRP217	269.0	59635 FRP217	134.5 1	3.0	6.5	6.0	107.9 provide solutions
59568	[STK324 269.000]	TO 59638	[STK324 134.500]	CKT 1	59545*FRP217	269.0	59635 FRP217	134.5 1	3.0	6.3	6.0	104.8 provide solutions
59637	[HUM308 134.500]	TO 59641	[CAP304 134.500]	CKT 1	59545*FRP217	269.0	59635 FRP217	134.5 1	3.0	6.1	6.0	101.3 provide solutions
59638	[STK324 134.500]	TO 59641	[CAP304 134.500]	CKT 1	59545*FRP217	269.0	59635 FRP217	134.5 1	3.0	6.3	6.0	104.9 provide solutions

2004 SUMMER PEAK, ST. JOSEPH LIGHT AND POWER - AREA 679

NONE

2004 WINTER PEAK, MISSOURI PUBLIC SERVICE - AREA 540

MULTI-SECTION LINE GROUPINGS				FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT
59242	[CLINTON5161.00]	TO 96071	[SCLINTN 161.00]	CKT 1	59228*WBURGE	5 161	59269 WBURGE	269.0 1	34.6	50.3	50.0	100.6 Acceptable

2004 WINTER PEAK, EMPIRE DISTRICT ELECTRIC - AREA 544

MULTI-SECTION LINE GROUPINGS				FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT
59568	[STK324 269.000]	TO 59616	[STK631J269.000]	CKT 1	59545*FRP217	269.0	59635 FRP217	134.5 1	3.6	7.7	5.0	153.4 provide solutions
59568	[STK324 269.000]	TO 59638	[STK324 134.500]	CKT 1	59545*FRP217	269.0	59635 FRP217	134.5 1	3.6	7.6	5.0	152.7 provide solutions
59605	[STK418 269.000]	TO 59614	[SK631CJ269.000]	CKT 1	59545*FRP217	269.0	59635 FRP217	134.5 1	3.6	5.6	5.0	112.2 provide solutions
59637	[HUM308 134.500]	TO 59641	[CAP304 134.500]	CKT 1	59545*FRP217	269.0	59635 FRP217	134.5 1	3.6	7.6	5.0	152.9 provide solutions
59638	[STK324 134.500]	TO 59641	[CAP304 134.500]	CKT 1	59545*FRP217	269.0	59635 FRP217	134.5 1	3.6	7.9	5.0	157.6 provide solutions
59605	[STK418 269.000]	TO 96118	[SYTKAEC 161.00]	CKT 1	59545*FRP217	269.0	59635 FRP217	134.5 1	3.6	5.6	5.0	112.1 provide solutions

2004 WINTER PEAK, ST. JOSEPH LIGHT AND POWER - AREA 679

NONE

2006 SUMMER PEAK, MISSOURI PUBLIC SERVICE - AREA 540

MULTI-SECTION LINE GROUPINGS				FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT
BASE CASE					59239*HSNVL	5 161	59295 HSNVL	269.0 1	51.0	51.0	50.0	102.1 Planned Upgrades
59162	[PHILL#1 22.000]	TO 59225	[PHILL 5161.00]	CKT 1	59151*SIBLEY#322.0	59202	SIBLEY	5 161 1	399.7	405.8	400.0	101.4 Rating
					59200*PHILL	7 345	59225 PHILL	5 161 1	210.2	416.5	400.0	104.1 Acceptable
					59239*HSNVL	5 161	59295 HSNVL	269.0 1	51.0	52.5	50.0	105.1 Planned Upgrades
59163	[PHILL#2 22.000]	TO 59200	[PHILL 7345.00]	CKT 1	59151*SIBLEY#322.0	59202	SIBLEY	5 161 1	399.7	403.6	400.0	100.9 Rating
59200	[PHILL 7345.00]	TO 59201	[SIBLEY 7345.00]	CKT 1	59151*SIBLEY#322.0	59202	SIBLEY	5 161 1	399.7	403.3	400.0	100.8 Rating
59200	[PHILL 7345.00]	TO 59225	[PHILL 5161.00]	CKT 1	59239*HSNVL	5 161	59295 HSNVL	269.0 1	51.0	52.1	50.0	104.1 Planned Upgrades
59202	[SIBLEY 5161.00]	TO 59263	[SIBLEY 269.000]	CKT 1	59151*SIBLEY#322.0	59202	SIBLEY	5 161 1	399.7	400.7	400.0	100.2 Rating
					59262 LIBERTY	269.0	59263*SIBLEY	269.0 1	45.1	82.7	78.0	102.9 Generation
59205	[BLSPE 5161.00]	TO 59211	[BLSPS 5161.00]	CKT 1	59151*SIBLEY#322.0	59202	SIBLEY	5 161 1	399.7	400.8	400.0	100.2 Rating
59206	[PRALEE 5161.00]	TO 59211	[BLSPS 5161.00]	CKT 1	59151*SIBLEY#322.0	59202	SIBLEY	5 161 1	399.7	401.4	400.0	100.4 Rating
59206	[PRALEE 5161.00]	TO 59233	[LEESUM 5161.00]	CKT 1	59151*SIBLEY#322.0	59202	SIBLEY	5 161 1	399.7	401.3	400.0	100.3 Rating
59207	[ARCHIB 5161.00]	TO 59239	[HSNVL 5161.00]	CKT 1	59239*HSNVL	5 161	59295 HSNVL	269.0 1	51.0	52.3	50.0	104.6 Planned Upgrades
59207	[ARCHIB 5161.00]	TO 59240	[ADRIAN 5161.00]	CKT 1	59239*HSNVL	5 161	59295 HSNVL	269.0 1	51.0	55.2	50.0	110.3 Planned Upgrades
59208	[NEVADA 5161.00]	TO 59216	[BUTLER 5161.00]	CKT 1	59239*HSNVL	5 161	59295 HSNVL	269.0 1	51.0	53.2	50.0	106.4 Planned Upgrades
59208	[NEVADA 5161.00]	TO 59308	[NEVADA 269.000]	CKT 1	59208*NEVADA	5 161	59308 NEVADA	269.0 2	31.5	61.3	50.0	122.5 Acceptable
59208	[NEVADA 5161.00]	TO 59308	[NEVADA 269.000]	CKT 2	59208*NEVADA	5 161	59308 NEVADA	269.0 1	35.8	62.4	50.0	124.8 Acceptable
59209	[SEDALIAS15161.00]	TO 59271	[SEDN 269.000]	CKT 1	59209*SEDALIAS	161	59272 SEDS	269.0 1	31.0	53.9	50.0	107.7 Acceptable
59209	[SEDALIAS15161.00]	TO 59272	[SEDS 269.000]	CKT 1	59209*SEDALIAS	161	59271 SEDN	269.0 1	34.4	55.8	50.0	111.6 Acceptable
59210	[MARTCTY5161.00]	TO 59287	[MARTCTY269.000]	CKT 1	59225*PHILL	5 161	59280 PHILL	269.0 1	90.8	101.3	100.0	101.3 Acceptable
					59239*HSNVL	5 161	59295 HSNVL	269.0 1	51.0	57.6	50.0	115.2 Planned Upgrades

BRANCH OVERLOAD TABLE

X-----		MULTI-SECTION LINE GROUPINGS	---	X	FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT	
59216	[BUTLER_ 5161.00]	TO 59240	[ADRIAN 5161.00]	CKT 1	59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	54.8	50.0	109.6 Planned Upgrades
59218	[GRNWID 5161.00]	TO 59225	[PHILL 5161.00]	CKT 1	59151*SIBLEY#322.0	59202	SIBLEY	5 161	1	399.7	401.1	400.0	100.3 Rating	
59218	[GRNWID 5161.00]	TO 59233	[LEESUM 5161.00]	CKT 1	59151*SIBLEY#322.0	59202	SIBLEY	5 161	1	399.7	402.3	400.0	100.6 Rating	
59219	[RAYTOWN5161.00]	TO 59220	[FROSTRD5161.00]	CKT 1	59151*SIBLEY#322.0	59202	SIBLEY	5 161	1	399.7	401.3	400.0	100.3 Rating	
59220	[FROSTRD5161.00]	TO 59245	[KCSOUTH5161.00]	CKT 1	59151*SIBLEY#322.0	59202	SIBLEY	5 161	1	399.7	400.7	400.0	100.2 Rating	
59224	[LNGVW 5161.00]	TO 59245	[KCSOUTH5161.00]	CKT 1	59151*SIBLEY#322.0	59202	SIBLEY	5 161	1	399.7	401.2	400.0	100.3 Rating	
59224	[LNGVW 5161.00]	TO 59249	[HOOKRD 5161.00]	CKT 1	59151*SIBLEY#322.0	59202	SIBLEY	5 161	1	399.7	401.2	400.0	100.3 Rating	
					59225*PHILL	5 161	59280	PHILL	269.0	1	90.8	101.4	100.0	101.4 Acceptable
					59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	53.3	50.0	106.5 Planned Upgrades
59224	[LNGVW 5161.00]	TO 59282	[LNGVW 269.000]	CKT 1	59210*MARTCTY5	161	59287	MARTCTY	269.0	1	37.8	58.8	50.0	117.5 Acceptable
					59225*PHILL	5 161	59280	PHILL	269.0	1	90.8	103.9	100.0	103.9 Acceptable
59225	[PHILL 5161.00]	TO 59243	[LKWINGBS5161.00]	CKT 1	59151*SIBLEY#322.0	59202	SIBLEY	5 161	1	399.7	401.9	400.0	100.5 Rating	
					59225*PHILL	5 161	59280	PHILL	269.0	1	90.8	103.3	100.0	103.3 Acceptable
59225	[PHILL 5161.00]	TO 59280	[PHILL 269.000]	CKT 1	59210*MARTCTY5	161	59287	MARTCTY	269.0	1	37.8	56.7	50.0	113.4 Acceptable
					59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	53.7	50.0	107.4 Planned Upgrades
					59284	GRDVWTP269.0	59288*RGAFB	269.0	1	35.8	70.1	53.0	144.8 Upgrade	
					59288	RGAFB	269.0	59289*BELTON	269.0	1	30.5	64.2	53.0	133.7 Upgrade
					59289	BELTON	269.0	59290*BELTONS269.0	1	25.1	58.0	53.0	122.5 Upgrade	
					59296	HSNVLSW269.0	59297*HSNVLN	269.0	1	17.7	41.7	41.0	109.5 Upgrade	
59239	[HSNVL 5161.00]	TO 59295	[HSNVL 269.000]	CKT 1	59225*PHILL	5 161	59280	PHILL	269.0	1	90.8	119.4	100.0	119.4 Acceptable
					59284	GRDVWTP269.0	59288*RGAFB	269.0	1	35.8	53.2	53.0	106.3 Upgrade	
59242	[CLINTON5161.00]	TO 59303	[CLINTON269.000]	CKT 1	59242*CLINTONS	161	59303	CLINTON269.0	2	38.4	60.1	50.0	120.1 Acceptable	
59242	[CLINTON5161.00]	TO 59303	[CLINTON269.000]	CKT 2	59242*CLINTONS	161	59303	CLINTON269.0	1	38.9	60.8	50.0	121.6 Acceptable	
59243	[LKWINGBS5161.00]	TO 59249	[HOOKRD 5161.00]	CKT 1	59151*SIBLEY#322.0	59202	SIBLEY	5 161	1	399.7	401.5	400.0	100.4 Rating	
					59225*PHILL	5 161	59280	PHILL	269.0	1	90.8	102.4	100.0	102.4 Acceptable
					59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	53.5	50.0	107.0 Planned Upgrades
59268	[WBURGP 269.000]	TO 59269	[WBURGE 269.000]	CKT 1	59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	52.3	50.0	104.6 Planned Upgrades
59268	[WBURGP 269.000]	TO 59278	[HOLDEN 269.000]	CKT 1	59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	52.1	50.0	104.2 Planned Upgrades
59279	[RGREEN 269.000]	TO 59280	[PHILL 269.000]	CKT 1	59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	69.3	50.0	138.5 Generation
					59295	HSNVL	269.0	59296*HSNVLSW269.0	1	21.3	53.0	53.0	102.6 Generation	
					59296	HSNVLSW269.0	59297*HSNVLN	269.0	1	17.7	48.7	41.0	123.6 Generation	
59279	[RGREEN 269.000]	TO 59297	[HSNVLN 269.000]	CKT 1	59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	55.3	50.0	110.6 Planned Upgrades
59280	[PHILL 269.000]	TO 59290	[BELTONS269.000]	CKT 1	59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	52.8	50.0	105.6 Planned Upgrades
					59284	GRDVWTP269.0	59288*RGAFB	269.0	1	35.8	55.6	53.0	112.7 Upgrade	
					59288	RGAFB	269.0	59289*BELTON	269.0	1	30.5	50.0	53.0	102.1 Upgrade
					59292*ANCONDA269.0	59293	HSNVILW	269.0	1	17.9	33.1	32.0	104.8 Upgrade	
59282	[LNGVW 269.000]	TO 59284	[GRDVWTP269.000]	CKT 1	59210*MARTCTY5	161	59287	MARTCTY	269.0	1	37.8	54.4	50.0	108.7 Acceptable
					59225*PHILL	5 161	59280	PHILL	269.0	1	90.8	101.1	100.0	101.1 Acceptable
					59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	56.4	50.0	112.8 Planned Upgrades
59284	[GRDVWTP269.000]	TO 59285	[GRDWCTY269.000]	CKT 1	59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	52.2	50.0	104.4 Planned Upgrades
59284	[GRDVWTP269.000]	TO 59288	[RGAFB 269.000]	CKT 1	59225*PHILL	5 161	59280	PHILL	269.0	1	90.8	115.5	100.0	115.5 Acceptable
					59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	65.3	50.0	130.7 Planned Upgrades
59285	[GRDWCTY269.000]	TO 59286	[GRDWST 269.000]	CKT 1	59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	54.2	50.0	108.4 Planned Upgrades
59286	[GRDWST 269.000]	TO 59287	[MARTCTY269.000]	CKT 1	59225*PHILL	5 161	59280	PHILL	269.0	1	90.8	101.2	100.0	101.2 Acceptable
					59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	57.6	50.0	115.1 Planned Upgrades
59288	[RGAFB 269.000]	TO 59289	[BELTON 269.000]	CKT 1	59225*PHILL	5 161	59280	PHILL	269.0	1	90.8	111.6	100.0	111.6 Acceptable
					59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	63.0	50.0	126.0 Planned Upgrades
59289	[BELTON 269.000]	TO 59290	[BELTONS269.000]	CKT 1	59225*PHILL	5 161	59280	PHILL	269.0	1	90.8	107.6	100.0	107.6 Acceptable
					59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	60.7	50.0	121.3 Planned Upgrades
59295	[HSNVL 269.000]	TO 59296	[HSNVLSW269.000]	CKT 1	59225*PHILL	5 161	59280	PHILL	269.0	1	90.8	100.7	100.0	100.7 Acceptable
59201	[SIBLEY 7345.00]	TO 31408	[OVERTON 345.00]	CKT 1	59151*SIBLEY#322.0	59202	SIBLEY	5 161	1	399.7	402.7	400.0	100.7 Rating	
59210	[MARTCTY5161.00]	TO 58002	[MARTCITS161.00]	CKT 1	59239*HSNVL	5 161	59295	HSNVL	269.0	1	51.0	52.8	50.0	105.6 Planned Upgrades

BRANCH OVERLOAD TABLE

MULTI-SECTION LINE GROUPINGS				FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT
59217 [WINDSR 5161.00]	TO 96071 [5CLINTN 161.00]	CKT 1	59239*HSNVL 5 161	59295 HSNVL	269.0 1	51.0	52.0	50.0	104.1	Planned Upgrades		
59242 [CLINTON5161.00]	TO 96071 [5CLINTN 161.00]	CKT 1	59151*SIBLEY#322.0	59202 SIBLEY 5 161 1	399.7	401.2	400.0	100.3	Accept Risk			
			59208*NEVADA 5 161	59308 NEVADA	269.0 1	35.8	50.3	50.0	100.6	Accept Risk		
			59239*HSNVL 5 161	59295 HSNVL	269.0 1	51.0	53.6	50.0	107.3	Accept Risk		
			59268 WBURGP 269.0	59300*POSTOAK269.0 1	1.5	54.2	46.0	135.1	Accept Risk			
			59300 POSTOAK269.0	59301*CLNTPLT269.0 1	9.3	41.8	46.0	112.1	Accept Risk			
SPP-12												
59207 [ARCHIE 5161.00]	TO 59240 [ADRIAN 5161.00]	CKT 1	59239*HSNVL 5 161	59295 HSNVL	269.0 1	51.0	55.1	50.0	110.3	Planned Upgrades		
59216 [BUTLER_5161.00]	TO 59240 [ADRIAN 5161.00]	CKT 1										
59208 [NEVADA 5161.00]	TO 59216 [BUTLER_5161.00]	CKT 1										
CONTINGENCY SPP-CIRCGD1												
56752 [HOYT 7345.00]	TO 56758 [STRANGR7345.00]	CKT 1	59151*SIBLEY#322.0	59202 SIBLEY 5 161 1	399.7	400.8	400.0	100.2	Rating			
57043 [CIRCLE 3115.00]	TO 57058 [MOUNDRG3115.00]	CKT 1										
57033 [SPRGCRK3115.00]	TO 57058 [MOUNDRG3115.00]	CKT 1										

2006 SUMMER PEAK, EMPIRE DISTRICT ELECTRIC - AREA 544

MULTI-SECTION LINE GROUPINGS				FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT
BASE CASE				59468 AUR124 5 161	59480*MON383 5 161 1	154.2	154.2	157.0	100.7	reconductor		
59400 [MON376J269.000]	TO 59402 [MON416J269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	155.4	157.0	101.3	reconductor			
59400 [MON376J269.000]	TO 59591 [MON383 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	156.2	157.0	101.7	reconductor			
59405 [MON352J269.000]	TO 59591 [MON383 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	155.4	157.0	101.3	reconductor			
59468 [AUR124 5161.00]	TO 59480 [MON383 5161.00]	CKT 1	59480*MON383 5 161	59591 MON383 269.0 1	122.3	156.5	150.0	104.3	increase capacity			
59469 [RIV167 5161.00]	TO 59487 [HOC404 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	155.3	157.0	101.4	reconductor			
59469 [RIV167 5161.00]	TO 59498 [STL439 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	155.9	157.0	101.9	reconductor			
59470 [JOP145 5161.00]	TO 59539 [JOP145 269.000]	CKT 1	59483*JOP389 5 161	59592 JOP389 269.0 1	59.5	75.7	75.0	101.0	increase capacity			
59472 [TIP292 5161.00]	TO 59483 [JOP389 5161.00]	CKT 1	59483*JOP389 5 161	59592 JOP389 269.0 1	59.5	76.6	75.0	102.1	increase capacity			
59474 [OZD312 5161.00]	TO 59482 [HOL387 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	155.3	157.0	101.4	reconductor			
59480 [MON383 5161.00]	TO 59591 [MON383 269.000]	CKT 1	59458*AUR124 5 161	59480 MON383 5 161 1	154.2	205.0	157.0	134.8	reconductor			
			59468*AUR124 5 161	59537 AUR124 269.0 3	23.7	45.9	42.0	109.4	increase capacity			
59482 [HOL387 5161.00]	TO 59497 [RVS438 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	155.6	157.0	101.6	reconductor			
59483 [JOP389 5161.00]	TO 59498 [STL439 5161.00]	CKT 2	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	153.2	157.0	100.1	reconductor			
59483 [JOP389 5161.00]	TO 59607 [JOP422 5161.00]	CKT 1	59483*JOP389 5 161	59592 JOP389 269.0 1	59.5	79.3	75.0	105.7	increase capacity			
59488 [BRN412 5161.00]	TO 59495 [GRT433 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	156.8	157.0	102.5	reconductor			
59489 [BRN413 5161.00]	TO 59495 [GRT433 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	158.5	157.0	103.6	reconductor			
59489 [BRN413 5161.00]	TO 59497 [RVS438 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	161.4	157.0	105.5	reconductor			
59532 [CAR108 269.000]	TO 59600 [JAS403T269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	156.5	157.0	102.2	reconductor			
59537 [AUR124 269.000]	TO 59540 [MON152 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	157.4	157.0	102.8	reconductor			
59540 [MON152 269.000]	TO 59591 [MON383 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	164.5	157.0	107.4	reconductor			
59546 [BIL221 269.000]	TO 59580 [REP359 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	153.2	157.0	100.1	reconductor			
59548 [BOS249 269.000]	TO 59550 [GLD251 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	155.9	157.0	101.8	reconductor			
59548 [BOS249 269.000]	TO 59600 [JAS403T269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	155.9	157.0	101.8	reconductor			
59550 [GLD251 269.000]	TO 59598 [LKW400 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	155.4	157.0	101.5	reconductor			
59568 [STK324 269.000]	TO 59616 [STK631J269.000]	CKT 1	59545*FRP217 269.0	59635 FRP217 134.5 1	3.0	6.8	6.0	112.7	provide solutions			
59568 [STK324 269.000]	TO 59638 [STK324 134.500]	CKT 1	59545*FRP217 269.0	59635 FRP217 134.5 1	3.0	6.6	6.0	109.4	provide solutions			
59593 [JOP391 5161.00]	TO 59607 [JOP422 5161.00]	CKT 1	59483*JOP389 5 161	59592 JOP389 269.0 1	59.5	75.8	75.0	101.0	increase capacity			
59637 [HUM308 134.500]	TO 59641 [CAP304 134.500]	CKT 1	59545*FRP217 269.0	59635 FRP217 134.5 1	3.0	6.4	6.0	105.9	provide solutions			
59638 [STK324 134.500]	TO 59641 [CAP304 134.500]	CKT 1	59545*FRP217 269.0	59635 FRP217 134.5 1	3.0	6.6	6.0	109.6	provide solutions			
59471 [NEO184 5161.00]	TO 52686 [NEO SPA5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	155.8	157.0	101.8	reconductor			
59472 [TIP292 5161.00]	TO 52686 [NEO SPA5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	159.3	157.0	104.2	reconductor			
59478 [DAD368 5161.00]	TO 96101 [SMORGAN 161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	188.2	157.0	123.3	reconductor			
59479 [LAR382 5161.00]	TO 52688 [CARTHAG5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	159.8	157.0	104.3	reconductor			
59479 [LAR382 5161.00]	TO 52692 [SPRGFLDS5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161 1	154.2	169.3	157.0	110.8	reconductor			

BRANCH OVERLOAD TABLE

MULTI-SECTION LINE GROUPINGS				FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT
X-----	59481 [MON383 7345.00]	TO 59984 [BRKLNE 7345.00]	CKT 1	59468	AUR124 5 161	59480*MON383 5 161	1	154.2	178.4	157.0	116.2	reconductor
59497 [RVS438 5161.00]	TO 52672 [TABLE R5161.00]	CKT 1	59468	AUR124 5 161	59480*MON383 5 161	1	154.2	181.6	157.0	119.2	reconductor	
CONTINGENCY SPP-12												
59207 [ARCHIE 5161.00]	TO 59240 [ADRIAN 5161.00]	CKT 1	59468	AUR124 5 161	59480*MON383 5 161	1	154.2	162.0	157.0	106.2	reconductor	
59216 [BUTLER_5161.00]	TO 59240 [ADRIAN 5161.00]	CKT 1										
59208 [NEVADA 5161.00]	TO 59216 [BUTLER_5161.00]	CKT 1										
CONTINGENCY SPP-CIRCGD1												
56752 [HOYT 7345.00]	TO 56758 [STRANGR7345.00]	CKT 1	59468	AUR124 5 161	59480*MON383 5 161	1	154.2	155.4	157.0	101.5	reconductor	
S7043 [CIRCLB 3115.00]	TO 57058 [MOUNDRG3115.00]	CKT 1										
57033 [SPRGCRK3115.00]	TO 57058 [MOUNDRG3115.00]	CKT 1										

2006 SUMMER PEAK, ST. JOSEPH LIGHT AND POWER - AREA 679

NONE

2006 WINTER PEAK, MISSOURI PUBLIC SERVICE - AREA 540

MULTI-SECTION LINE GROUPINGS				FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT
X-----	59225 [PHILL 5161.00]	TO 59280 [PHILL 269.000]	CKT 1	59239*HSNVL 5 161	59295 HSNVL	269.0	1	30.6	52.2	50.0	104.4	Acceptable

2006 WINTER PEAK, EMPIRE DISTRICT ELECTRIC - AREA 544

MULTI-SECTION LINE GROUPINGS				FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT
X-----	59545 [FRP217 269.000]	TO 59635 [FRP217 134.500]	CKT 1	59568*STK324 269.0	59638 STK324	134.5	1	4.8	9.4	9.0	104.2	provide solutions
59568 [STK324 269.000]	TO 59616 [STK631J269.000]	CKT 1	59545*FRP217 269.0	59635 FRP217	134.5	1	3.8	8.2	5.0	164.1	provide solutions	
59568 [STK324 269.000]	TO 59638 [STK324 134.500]	CKT 1	59545*FRP217 269.0	59635 FRP217	134.5	1	3.8	8.2	5.0	163.3	provide solutions	
59605 [STK418 269.000]	TO 59614 [SK631JC269.000]	CKT 1	59545*FRP217 269.0	59635 FRP217	134.5	1	3.8	6.1	5.0	121.5	provide solutions	
59635 [FRP217 134.500]	TO 59639 [DUN283 134.500]	CKT 1	59568*STK324 269.0	59638 STK324	134.5	1	4.8	9.4	9.0	104.7	provide solutions	
59637 [HUM308 134.500]	TO 59641 [CAP304 134.500]	CKT 1	59545*FRP217 269.0	59635 FRP217	134.5	1	3.8	7.9	5.0	158.9	provide solutions	
59638 [STK324 134.500]	TO 59641 [CAP304 134.500]	CKT 1	59545*FRP217 269.0	59635 FRP217	134.5	1	3.8	8.2	5.0	163.5	provide solutions	
59605 [STK418 269.000]	TO 96118 [5STKAEC 161.00]	CKT 1	59545*FRP217 269.0	59635 FRP217	134.5	1	3.8	6.1	5.0	122.8	provide solutions	

2006 WINTER PEAK, ST. JOSEPH LIGHT AND POWER - AREA 679

NONE

2010 SUMMER PEAK, MISSOURI PUBLIC SERVICE - AREA 540

MULTI-SECTION LINE GROUPINGS				FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT
X-----	59202 [SIBLEY 5161.00]	TO 59263 [SIBLEY 269.000]	CKT 1	59262 LIBERTY269.0	59263*SIBLEY 269.0	1	45.7	85.0	78.0	105.7	Generation	
59207 [ARCHIE 5161.00]	TO 59239 [HSNVL 5161.00]	CKT 1	59239*HSNVL 5 161	59295 HSNVL	269.0	1	47.2	50.5	50.0	100.9	Acceptable	
59207 [ARCHIE 5161.00]	TO 59240 [ADRIAN 5161.00]	CKT 1	59239*HSNVL 5 161	59295 HSNVL	269.0	1	47.2	51.9	50.0	103.9	Acceptable	
59208 [NEVADA 5161.00]	TO 59216 [BUTLER_5161.00]	CKT 1	59216*BUTLER_5 161	96689 2BUTLER	69.0	1	38.3	59.4	56.0	106.0	Not Valid	
59208 [NEVADA 5161.00]	TO 59308 [NEVADA 269.000]	CKT 1	59208*NEVADA 5 161	59308 NEVADA	269.0	2	36.0	72.8	50.0	145.6	Generation	
59208 [NEVADA 5161.00]	TO 59308 [NEVADA 269.000]	CKT 2	59208*NEVADA 5 161	59308 NEVADA	269.0	1	41.0	73.1	50.0	146.2	Generation	
59209 [SEDALIAS5161.00]	TO 59271 [SEDN 269.000]	CKT 1	59209*SEDALIAS 161	59272 SEDS	269.0	1	34.9	59.8	50.0	119.6	Shift Load-161	
			59269 WBURGE	269.0	59270*KNOSTER	269.0	1	20.9	35.9	35.0	105.0	Shift Load-161
59209 [SEDALIAS5161.00]	TO 59272 [SEDS 269.000]	CKT 1	59209*SEDALIAS 161	59271 SEDN	269.0	1	37.1	61.0	50.0	122.0	Shift Load-161	
			59269 WBURGE	269.0	59270*KNOSTER	269.0	1	20.9	34.4	35.0	100.6	Shift Load-161
59210 [MARTCTY5161.00]	TO 59287 [MARTCTY269.000]	CKT 1	59239*HSNVL 5 161	59295 HSNVL	269.0	1	47.2	52.8	50.0	105.6	Acceptable	
59216 [BUTLER_5161.00]	TO 59240 [ADRIAN 5161.00]	CKT 1	59239*HSNVL 5 161	59295 HSNVL	269.0	1	47.2	51.5	50.0	103.1	Not Valid	
59224 [LNGVW 5161.00]	TO 59282 [LNGVW 269.000]	CKT 1	59210*MARTCTYS 161	59287 MARTCTY	269.0	1	38.3	59.7	50.0	119.5	Acceptable	
			59239*HSNVL 5 161	59295 HSNVL	269.0	1	47.2	54.0	50.0	108.0	Acceptable	
59225 [PHILL 5161.00]	TO 59243 [LKWINGB5161.00]	CKT 1	59239*HSNVL 5 161	59295 HSNVL	269.0	1	47.2	50.1	50.0	100.2	Acceptable	

BRANCH OVERLOAD TABLE

MULTI-SECTION LINE GROUPINGS				FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT
59225 [PHILL 5161.00]	TO 59280 [PHILL 269.000]	CKT 1	59210*MARTCTY5 161	59287 MARTCTY269.0	1	38.3	50.2	50.0	100.4	Acceptable		
			59239*HSNVL 5 161	59295 HSNVL 269.0	1	47.2	70.5	50.0	140.9	Planned Upgrades		
			59284 GRDVWTP269.0	59288*RGAFB 269.0	1	32.8	58.5	53.0	115.0	Upgrade		
			59288 RGAFB 269.0	59289*BELTON 269.0	1	26.8	52.4	53.0	103.5	Upgrade		
59228 [WBURGE 5161.00]	TO 59269 [WBURGE 269.000]	CKT 1	59228*WBURGE 5 161	59269 WBURGE 269.0	2	34.2	54.5	50.0	109.0	Acceptable		
59228 [WBURGE 5161.00]	TO 59269 [WBURGE 269.000]	CKT 2	59228*WBURGE 5 161	59269 WBURGE 269.0	1	34.2	54.5	50.0	109.0	Acceptable		
59239 [HSNVL 5161.00]	TO 59295 [HSNVL 269.000]	CKT 1	59279 RGREEN 269.0	59297*HSNVLN 269.0	1	19.1	43.2	41.0	113.8	Acceptable		
59242 [CLINTONS161.00]	TO 59303 [CLINTON269.000]	CKT 1	59242*CLINTONS 161	59303 CLINTON269.0	2	42.7	66.9	50.0	133.8	Upgrade		
59242 [CLINTONS161.00]	TO 59303 [CLINTON269.000]	CKT 2	59242*CLINTONS 161	59303 CLINTON269.0	1	43.2	67.6	50.0	135.2	Upgrade		
59279 [RGREEN 269.000]	TO 59280 [PHILL 269.000]	CKT 1	59239*HSNVL 5 161	59295 HSNVL 269.0	1	47.2	53.7	50.0	107.4	Acceptable		
59279 [RGREEN 269.000]	TO 59297 [HSNVLN 269.000]	CKT 1	59239*HSNVL 5 161	59295 HSNVL 269.0	1	47.2	57.8	50.0	115.5	Acceptable		
59280 [PHILL 269.000]	TO 59290 [BELTONS269.000]	CKT 1	59210*MARTCTY5 161	59287 MARTCTY269.0	1	38.3	55.1	50.0	110.1	Upgrade		
			59239*HSNVL 5 161	59295 HSNVL 269.0	1	47.2	52.0	50.0	104.0	Upgrade		
			59284 GRDVWTP269.0	59288*RGAFB 269.0	1	32.8	62.2	53.0	127.9	Upgrade		
			59288 RGAFB 269.0	59289*BELTON 269.0	1	26.8	55.7	53.0	115.7	Upgrade		
			59289 BELTON 269.0	59290*BELTONS269.0	1	20.7	49.0	53.0	103.1	Upgrade		
			59292*ANCONDA269.0	59293 HSNVLW 269.0	1	19.3	39.2	32.0	125.9	Upgrade		
59282 [INGVW 269.000]	TO 59284 [GRDVWTP269.000]	CKT 1	59210*MARTCTY5 161	59287 MARTCTY269.0	1	38.3	55.2	50.0	110.4	Acceptable		
			59239*HSNVL 5 161	59295 HSNVL 269.0	1	47.2	52.5	50.0	105.1	Acceptable		
59284 [GRDVWTP269.000]	TO 59288 [RGAFB 269.000]	CKT 1	59239*HSNVL 5 161	59295 HSNVL 269.0	1	47.2	59.5	50.0	119.0	Acceptable		
59286 [GRDWST 269.000]	TO 59287 [MARTCTY269.000]	CKT 1	59239*HSNVL 5 161	59295 HSNVL 269.0	1	47.2	52.8	50.0	105.6	Acceptable		
59288 [RGAFB 269.000]	TO 59289 [BELTON 269.000]	CKT 1	59239*HSNVL 5 161	59295 HSNVL 269.0	1	47.2	56.8	50.0	113.7	Acceptable		
59289 [BELTON 269.000]	TO 59290 [BELTONS269.000]	CKT 1	59239*HSNVL 5 161	59295 HSNVL 269.0	1	47.2	54.1	50.0	108.3	Acceptable		
59301 [CLNTPLT269.000]	TO 59304 [URICHTP269.000]	CKT 1	59208*NEVADA 5 161	59308 NEVADA 269.0	1	41.0	52.8	50.0	105.5	Acceptable		
59302 [CLINTGRN269.000]	TO 59303 [CLINTON269.000]	CKT 1	59301*CLNTPLT269.0	59303 CLINTON269.0	1	51.7	80.7	78.0	102.4	Upgrade		
59304 [URICHTP269.000]	TO 59306 [APCITY 269.000]	CKT 1	59208*NEVADA 5 161	59308 NEVADA 269.0	1	41.0	50.5	50.0	101.1	Acceptable		
59307 [NEVPLT 269.000]	TO 59308 [NEVADA 269.000]	CKT 1	59242*CLINTONS 161	59303 CLINTON269.0	1	43.2	56.0	50.0	112.0	Switch		
			59242*CLINTONS 161	96071 SCLINTN 161	1	42.7	54.8	50.0	109.7	Switch		
			59242*CLINTONS 161	96071 SCLINTN 161	1	85.7	110.8	100.0	110.4	Switch		
59242 [CLINTONS161.00]	TO 96071 [SCLINTN 161.00]	CKT 1	59208*NEVADA 5 161	59308 NEVADA 269.0	1	41.0	59.4	50.0	118.8	Accept Risk		
			59208*NEVADA 5 161	59308 NEVADA 269.0	2	36.0	52.2	50.0	104.4	Accept Risk		
			59228*WBURGE 5 161	59269 WBURGE 269.0	1	34.2	54.4	50.0	108.8	Accept Risk		
			59228*WBURGE 5 161	59269 WBURGE 269.0	2	34.2	54.4	50.0	108.8	Accept Risk		
			59268 WBURGP 269.0	59300*POSTOAK269.0	1	3.1	64.1	46.0	168.6	Accept Risk		
			59300 POSTOAK269.0	59301*CLNTPLT269.0	1	7.2	48.7	46.0	141.6	Accept Risk		

CONTINGENCY SPP-12

59207 [ARCHIE 5161.00]	TO 59240 [ADRIAN 5161.00]	CKT 1	59239*HSNVL 5 161	59295 HSNVL 269.0	1	47.2	51.9	50.0	103.9	Generation		
59216 [BUTLER_5161.00]	TO 59240 [ADRIAN 5161.00]	CKT 1										
59208 [NEVADA 5161.00]	TO 59216 [BUTLER_5161.00]	CKT 1										

2010 SUMMER PEAK, EMPIRE DISTRICT ELECTRIC - AREA 544

MULTI-SECTION LINE GROUPINGS				FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT
BASE CASE				59468 AUR124 5 161	59480*MON383 5 161	1	165.8	165.8	157.0	109.4	reconductor	
				59554*BAX271 269.0	59636 BAX271 134.5	1	9.4	9.4	9.0	104.0	increase capacity	
59400 [MON376J269.000]	TO 59402 [MON416J269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	167.1	157.0	110.0	reconductor		
59400 [MON376J269.000]	TO 59591 [MON383 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	167.8	157.0	110.3	reconductor		
59405 [MON352J269.000]	TO 59591 [MON383 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	167.1	157.0	110.0	reconductor		
59425 [HER209 269.000]	TO 59528 [BOL 73 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	164.7	157.0	108.6	reconductor		
59431 [WEB105 269.000]	TO 59556 [OAK280 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	166.8	157.0	110.1	reconductor		
59464 [BOL 73 5161.00]	TO 59493 [BOL431 5161.00]	CKT 1	59468 AUR124 5 161	59480 MON383 5 161	1	165.8	163.5	157.0	109.5	reconductor		
59465 [COL 94 5161.00]	TO 59469 [RIV167 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	163.8	157.0	108.1	reconductor		
59468 [AUR124 5161.00]	TO 59480 [MON383 5161.00]	CKT 1	59480*MON383 5 161	59591 MON383 269.0	1	136.7	174.9	150.0	116.6	increase capacity		
59468 [AUR124 5161.00]	TO 59537 [AUR124 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	162.9	157.0	107.5	reconductor		

BRANCH OVERLOAD TABLE

X----- MULTI-SECTION LINE GROUPINGS ----X		FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT
59468 [AUR124 5161.00]	TO 59537 [AUR124 269.000]	CKT 2	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	162.2	157.0	107.0	reconductor
59468 [AUR124 5161.00]	TO 59537 [AUR124 269.000]	CKT 3	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	156.8	157.0	103.5	reconductor
59469 [RIV167 5161.00]	TO 59487 [HOC404 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	167.9	157.0	110.8	reconductor
59469 [RIV167 5161.00]	TO 59498 [STL439 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	167.8	157.0	110.8	reconductor
59470 [JOP145 5161.00]	TO 59498 [STL439 5161.00]	CKT 1	59483*JOP389 5 161	59592 JOP389 269.0	1	66.1	80.3	75.0	107.0	increase capacity
59470 [JOP145 5161.00]	TO 59539 [JOP145 269.000]	CKT 1	59467 ORO110 5 161	59534*ORO110 269.0	1	55.9	78.8	75.0	105.1	increase capacity
			59483*JOP389 5 161	59592 JOP389 269.0	1	66.1	84.5	75.0	112.7	increase capacity
59472 [TIP292 5161.00]	TO 59480 [MON383 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	157.1	157.0	103.9	reconductor
59472 [TIP292 5161.00]	TO 59483 [JOP389 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	155.8	157.0	103.0	reconductor
			59483*JOP389 5 161	59592 JOP389 269.0	1	66.1	83.3	75.0	111.1	increase capacity
			59500 RNM393 5 161	59595*RNM393 269.0	1	57.9	76.6	75.0	102.2	increase capacity
59475 [BRN331 5161.00]	TO 59488 [BRN412 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	164.0	157.0	108.2	reconductor
59476 [ASB349 5161.00]	TO 59491 [PUR421 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	164.1	157.0	108.4	reconductor
59478 [DAD368 5161.00]	TO 59493 [BOL431 5161.00]	CKT 1	59545 FPR217 269.0	59585*IAD368 269.0	1	16.2	45.4	39.0	115.8	reconductor 69kv
			59545*FPR217 269.0	59612 BOL602 269.0	1	12.2	42.2	39.0	110.9	reconductor 69kv
59478 [DAD368 5161.00]	TO 59499 [CPK446 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	164.4	157.0	108.5	reconductor
59480 [MON383 5161.00]	TO 59481 [MON383 7345.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	154.6	157.0	103.4	reconductor
59480 [MON383 5161.00]	TO 59591 [MON383 269.000]	CKT 1	59468*AUR124 5 161	59480 MON383 5 161	1	165.8	222.3	157.0	148.8	reconductor
			59468*AUR124 5 161	59537 AUR124 269.0	2	13.0	25.5	24.0	106.1	increase capacity
			59468*AUR124 5 161	59537 AUR124 269.0	3	26.3	51.6	42.0	123.0	increase capacity
			59537 AUR124 269.0	59540*MON152 269.0	1	6.1	60.2	65.0	100.9	reconductor 69kv
59482 [HOL387 5161.00]	TO 59497 [RVS438 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	167.1	157.0	110.3	reconductor
59483 [JOP389 5161.00]	TO 59498 [STL439 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	163.9	157.0	108.2	reconductor
59483 [JOP389 5161.00]	TO 59498 [STL439 5161.00]	CKT 2	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	164.7	157.0	108.7	reconductor
59483 [JOP389 5161.00]	TO 59607 [JOP422 5161.00]	CKT 1	59483*JOP389 5 161	59592 JOP389 269.0	1	66.1	87.2	75.0	116.3	increase capacity
59485 [CAR395 5161.00]	TO 59491 [PUR421 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	164.4	157.0	108.6	reconductor
59488 [BRN412 5161.00]	TO 59495 [GRT433 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	168.4	157.0	111.2	reconductor
59489 [BRN413 5161.00]	TO 59495 [GRT433 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	170.3	157.0	112.5	reconductor
59489 [BRN413 5161.00]	TO 59497 [RVS438 5161.00]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	173.5	157.0	114.7	reconductor
59499 [CPK446 5161.00]	TO 59618 [CPK446 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	156.3	157.0	103.2	reconductor
59500 [RNM393 5161.00]	TO 59593 [JOP391 5161.00]	CKT 1	59483*JOP389 5 161	59592 JOP389 269.0	1	66.1	77.1	75.0	102.8	increase capacity
59500 [RNM393 5161.00]	TO 59595 [RNM393 269.000]	CKT 1	59483*JOP389 5 161	59592 JOP389 269.0	1	66.1	77.0	75.0	102.6	increase capacity
59532 [CAR108 269.000]	TO 59600 [JAS403T269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	167.9	157.0	110.8	reconductor
59537 [AUR124 269.000]	TO 59540 [MON152 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	168.6	157.0	111.3	reconductor
59537 [AUR124 269.000]	TO 59578 [AUR355 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	162.6	157.0	107.2	reconductor
			59618 CPK446 269.0	96677*2MTVVRN 69.0	1	18.1	35.7	36.0	103.4	reconductor 69kv
59537 [AUR124 269.000]	TO 59611 [MAR437 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	162.9	157.0	107.5	reconductor
59540 [MON152 269.000]	TO 59595 [RNM393 269.000]	CKT 1	59480*MON383 5 161	59591 MON383 269.0	1	136.7	154.1	150.0	102.7	increase capacity
59540 [MON152 269.000]	TO 59591 [MON383 269.000]	CKT 1	59468*AUR124 5 161	59480 MON383 5 161	1	165.8	175.3	157.0	117.0	reconductor
59546 [BIL221 269.000]	TO 59580 [REP359 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	164.7	157.0	108.7	reconductor
59546 [BIL221 269.000]	TO 59611 [MAR437 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	164.4	157.0	108.5	reconductor
59548 [BOS249 269.000]	TO 59550 [GLD251 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	167.2	157.0	110.3	reconductor
59548 [BOS249 269.000]	TO 59600 [JAS403T269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	167.2	157.0	110.3	reconductor
59568 [STK324 269.000]	TO 59616 [STK631J269.000]	CKT 1	59545*FPR217 269.0	59635 FPR217 134.5	1	3.2	7.1	6.0	117.9	provide solution
59568 [STK324 269.000]	TO 59638 [STK324 134.500]	CKT 1	59545*FPR217 269.0	59635 FPR217 134.5	1	3.2	7.3	6.0	121.7	provide solution
59570 [OZK330 269.000]	TO 59604 [BHJ415 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	166.9	157.0	110.2	reconductor
			59474*OZD312 5 161	59562 OZD312 269.0	1	20.9	46.4	42.0	110.4	provided solution
			59562 OZD312 269.0	59603*FOR410 269.0	1	20.7	44.4	45.0	101.8	reconductor 69kv
59577 [MTV351 269.000]	TO 59606 [MTV420 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	164.4	157.0	108.4	reconductor
59578 [AUR355 269.000]	TO 59606 [MTV420 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	163.9	157.0	108.0	reconductor
59586 [WIL445 269.000]	TO 59691 [WIL369 269.000]	CKT 1	59468 AUR124 5 161	59480*MON383 5 161	1	165.8	164.1	157.0	108.2	reconductor
59593 [JOP391 5161.00]	TO 59607 [JOP422 5161.00]	CKT 1	59483*JOP389 5 161	59592 JOP389 269.0	1	66.1	83.3	75.0	111.1	increase capacity

BRANCH OVERLOAD TABLE

MULTI-SECTION LINE GROUPINGS		FROM	NAME	TO	NAME	CKT	PRE-CNT	POST-CNT	RATING	PERCENT		
59637 [HUM308 134.500]		TO 59641	[CAP304 134.500]	CKT 1	59545*FRP217	269.0	59635 FRP217	134.5 1	3.2	6.8	6.0	113.8 provide solution
59638 [STK324 134.500]		TO 59641	[CAP304 134.500]	CKT 1	59545*FRP217	269.0	59635 FRP217	134.5 1	3.2	7.0	6.0	117.4 provide solution
59471 [NEO184 5161.00]		TO 52686	[NEO SPA5161.00]	CKT 1	59468 AUR124	5 161	59480*MON383	5 161 1	165.8	168.5	157.0	111.3 reconductor
59472 [T1P292 5161.00]		TO 52686	[NEO SPA5161.00]	CKT 1	59468 AUR124	5 161	59480*MON383	5 161 1	165.8	171.9	157.0	113.6 reconductor
59473 [T1P292 5161.00]					59483*JOP389	5 161	59592 JOP389	269.0 1	66.1	75.9	75.0	101.2 increase capacity
59474 [OZD312 5161.00]		TO 17879	[SOMAHA *161.00]	CKT 1	59468 AUR124	5 161	59480*MON383	5 161 1	165.8	164.4	157.0	108.4 reconductor
59478 [DAD368 5161.00]		TO 96101	[SMORGAN 161.00]	CKT 1	59468 AUR124	5 161	59480*MON383	5 161 1	165.8	206.8	157.0	137.0 reconductor
59479 [LAR382 5161.00]		TO 52688	[CARTHAG5161.00]	CKT 1	59468 AUR124	5 161	59480*MON383	5 161 1	165.8	184.7	157.0	122.3 reconductor
59479 [LAR382 5161.00]					59479*LAR382	5 161	59480 MON383	5 161 1	221.1	337.7	268.0	127.6 operating guide
59479 [SPRGFLD5161.00]		TO 52692	[SPRGFLD5161.00]	CKT 1	59468 AUR124	5 161	59480*MON383	5 161 1	165.8	184.8	157.0	122.4 reconductor
59479 [LAR382 5161.00]					59479 LAR382	5 161	59480*MON383	5 161 1	221.1	279.8	268.0	108.6 operating guide
59481 [MON383 7345.00]		TO 53140	[FLINTCR7345.00]	CKT 1	59468 AUR124	5 161	59480*MON383	5 161 1	165.8	159.4	157.0	106.3 reconductor
59481 [MON383 7345.00]		TO 59984	[BRKLNE 7345.00]	CKT 1	59468 AUR124	5 161	59480*MON383	5 161 1	165.8	174.7	157.0	115.1 reconductor
59484 [DEC392 5161.00]		TO 53139	[FLINTCR5161.00]	CKT 1	59468 AUR124	5 161	59480*MON383	5 161 1	165.8	163.4	157.0	108.0 reconductor
59487 [HOC404 5161.00]		TO 54431	[MIAMI 5161.00]	CKT 1	59468 AUR124	5 161	59480*MON383	5 161 1	165.8	166.9	157.0	110.1 reconductor
59497 [RVS438 5161.00]		TO 52672	[TABLE R5161.00]	CKT 1	59468* AUR124	5 161	59480 MON383	5 161 1	165.8	191.6	157.0	129.2 reconductor
CONTINGENCY SPP-07												
53277 [LYDIA 7345.00]		TO 54037	[VALIANT7345.00]	CKT 1	59468 AUR124	5 161	59480*MON383	5 161 1	165.8	158.4	157.0	104.5 reconductor
53277 [LYDIA 7345.00]		TO 53301	[NWTXARK7345.00]	CKT 1								
53277 [LYDIA 7345.00]		TO 53615	[WELSH 7345.00]	CKT 1								
CONTINGENCY SPP-12												
59207 [ARCHIE 5161.00]		TO 59240	[ADRIAN 5161.00]	CKT 1	59468* AUR124	5 161	59480 MON383	5 161 1	165.8	172.9	157.0	116.1 reconductor
59216 [BUTLER_5161.00]		TO 59240	[ADRIAN 5161.00]	CKT 1								
59208 [NBVADA 5161.00]		TO 59216	[BUTLER_5161.00]	CKT 1								
CONTINGENCY SPP-28												
51534 [TUCO 7345.00]		TO 54119	[O.K.U.-7345.00]	CKT 1	59468 AUR124	5 161	59480*MON383	5 161 1	165.8	162.2	157.0	107.0 reconductor
51533 [TUCO 6230.00]		TO 51534	[TUCO 7345.00]	CKT 1								
54119 [O.K.U.-7345.00]		TO 54131	[L.E.S.-7345.00]	CKT 1								
54119 [O.K.U.-7345.00]		TO 59991	[OKLAUN 7345.00]	CKT 1								
CONTINGENCY SPP-CIRCGD1												
56752 [HOYT 7345.00]		TO 56758	[STRANGR7345.00]	CKT 1	59468 AUR124	5 161	59480*MON383	5 161 1	165.8	167.1	157.0	110.3 reconductor
57043 [CIRCLE8 3115.00]		TO 57058	[MOUNDRG3115.00]	CKT 1								
57033 [SPRGCRK3115.00]		TO 57058	[MOUNDRG3115.00]	CKT 1								
CONTINGENCY SPP-CIRCGD3												
56754 [LANG 7345.00]		TO 56761	[WICHITA7345.00]	CKT 1	59468 AUR124	5 161	59480*MON383	5 161 1	165.8	164.3	157.0	108.4 reconductor
57043 [CIRCLE8 3115.00]		TO 57058	[MOUNDRG3115.00]	CKT 1								
57033 [SPRGCRK3115.00]		TO 57058	[MOUNDRG3115.00]	CKT 1								

2010 SUMMER PEAK, ST. JOSEPH LIGHT AND POWER - AREA 679

NONE

V. VOLTAGE REPORTS

VOLTAGE REPORT TABLE

2000 FALL PEAK, MISSOURI PUBLIC SERVICE - AREA 540

(OUTAGED BRANCH) (VOLTAGE RANGE)		(X--- BUS ---X)	V-CONT	V-INIT
59286 [GRDWST 269.000] TO BUS 59287 [MARTCTY269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59287 MARTCTY269.0	1.0543	1.0260 LTC
59307 [NEVPLT 269.000] TO BUS 59308 [NEVADA 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59306 APCITY 269.0 59307 NEVPLT 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.9269 0.8808 0.8798 0.8619	1.0113 SWITCH 1.0264 SWITCH 1.0256 SWITCH 1.0107 SWITCH
59308 [NEVADA 269.000] TO BUS 59309 [METZ 269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59159 NEVADA#113.2 59307 NEVPLT 269.0 59308 NEVADA 269.0 59311 NEVJCT 269.0	1.0570 1.0543 1.0570 1.0536	1.0287 LTC 1.0264 LTC 1.0287 LTC 1.0256 LTC
59309 [METZ 269.000] TO BUS 59310 [3M 269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59159 NEVADA#113.2 59308 NEVADA 269.0	1.0503 1.0503	1.0287 LTC 1.0287 LTC
59242 [CLINTON5161.00] TO BUS 96071 [5CLINTN 161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59302 CLNTGRN269.0	0.9495	1.0205 ACCEPTABLE
CONTINGENCY SPP-12				
59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59216 BUTLER_5 161	0.8927	1.0129 ACCEPTABLE
59216 [BUTLER_5 161.00] TO BUS 59240 [ADRIAN 5161.00]	CKT 1			
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5 161.00]	CKT 1			

2000 FALL PEAK, EMPIRE DISTRICT ELECTRIC - AREA 544

(OUTAGED BRANCH) (VOLTAGE RANGE)		(X--- BUS ---X)	V-CONT	V-INIT
59464 [BOL 73 5161.00] TO BUS 59528 [BOL 73 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59425 HER209 269.0 59432 BUF243J269.0 59434 BUF409 269.0 59528 BOL 73 269.0 59547 BUF243 269.0 59572 FGC333 269.0 59575 BUF342 269.0 59584 BOL367 269.0 59587 STR370 269.0 59596 FRG397 269.0 59612 BOL602 269.0	0.9261 0.9333 0.9213 0.9410 0.9331 0.9349 0.9278 0.9429 0.9494 0.9477 0.9456 0.9449	0.9812 above .90 0.9677 above .90 0.9619 above .90 0.9951 above .90 0.9676 above .90 0.9679 above .90 0.9681 above .90 0.9882 above .90 0.9743 above .90 0.9738 above .90 0.9883 above .90 0.9812 above .90
59478 [DAD368 5161.00] TO BUS 59493 [BOL431 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59434 BUF409 269.0 59575 BUF342 269.0	0.9386 0.9450	0.9619 above .90 0.9681 above .90
59480 [MON383 5161.00] TO BUS 59591 [MON383 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59400 MON376J269.0 59401 MON376 269.0 59403 MON416 269.0 59402 MON416J269.0 59404 PUR390 269.0	0.9466 0.9455 0.9417 0.9419 0.9246	0.9788 above .90 0.9777 above .90 0.9740 above .90 0.9743 above .90 0.9578 above .90
59528 [BOL 73 269.000] TO BUS 59575 [BUF342 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59432 BUF243J269.0 59434 BUF409 269.0 59547 BUF243 269.0 59572 FGC333 269.0 59575 BUF342 269.0	0.9294 0.9119 0.9292 0.9324 0.9184	0.9677 above .90 0.9619 above .90 0.9676 above .90 0.9679 above .90 0.9681 above .90
59535 [NIX114 269.000] TO BUS 59604 [BHJ415 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59535 NIX114 269.0 59542 NIC170 269.0 59546 BIL221 269.0 59576 REP345 269.0 59580 REP359 269.0	0.9383 0.9490 0.9442 0.9398 0.9349	1.0042 above .90 0.9845 above .90 0.9646 above .90 0.9684 above .90 0.9599 above .90

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X--- BUS ---X)	V-CONT	V-INIT
59537 [AUR124 269.000] TO BUS 59578 [AUR355 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59424 RES364 269.0 59552 LAW260 269.0 59553 ALB262 269.0 59573 HTC338 269.0 59577 MTV351 269.0 59578 AUR355 269.0 59606 MTV420 269.0	0.8971 0.9254 0.8995 0.9099 0.8906 0.8811 0.8896	0.9793 capacitor 69kv 0.9850 above .90 0.9815 capacitor 69kv 0.9829 above .90 0.9824 capacitor 69kv 0.9910 capacitor 69kv 0.9830 capacitor 69kv
59537 [AUR124 269.000] TO BUS 59611 [MAR437 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59546 BIL221 269.0 59576 REP345 269.0 59580 REP359 269.0 59611 MAR437 269.0	0.8917 0.9200 0.8997 0.8822	0.9646 capacitor 69kv 0.9684 above .90 0.9599 capacitor 69kv 0.9786 capacitor 69kv
59542 [NIC170 269.000] TO BUS 59576 [REP345 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59546 BIL221 269.0 59576 REP345 269.0 59580 REP359 269.0	0.9195 0.9036 0.9037	0.9646 above .90 0.9684 above .90 0.9599 above .90
59545 [FRP217 269.000] TO BUS 59635 [FRP217 134.500] CKT 1 VOLTAGE LESS THAN 0.9500:		59635 FRP217 134.5 59637 HUM308 134.5 59639 DUN283 134.5 59640 COL318 134.5	0.9159 0.9178 0.9162 0.9037	1.0258 above .90 0.9949 above .90 1.0098 above .90 0.9818 above .90
59546 [BIL221 269.000] TO BUS 59580 [REP359 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59580 REP359 269.0	0.9384	0.9599 above .90
59546 [BIL221 269.000] TO BUS 59611 [MAR437 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59546 BIL221 269.0 59576 REP345 269.0 59580 REP359 269.0	0.9227 0.9407 0.9254	0.9646 above .90 0.9684 above .90 0.9599 above .90
59568 [STK324 269.000] TO BUS 59616 [STK631J269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59568 STK324 269.0	0.9474	1.0043 above .90
59570 [OZK330 269.000] TO BUS 59604 [BHJ415 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59570 OZK330 269.0	0.9202	1.0091 above .90
59576 [REP345 269.000] TO BUS 59580 [REP359 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59546 BIL221 269.0 59580 REP359 269.0	0.9198 0.9041	0.9646 above .90 0.9599 above .90
59578 [AUR355 269.000] TO BUS 59606 [MTV420 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59424 RES364 269.0 59553 ALB262 269.0 59573 HTC338 269.0 59577 MTV351 269.0 59606 MTV420 269.0	0.9416 0.9439 0.9496 0.9401 0.9399	0.9793 above .90 0.9815 above .90 0.9829 above .90 0.9824 above .90 0.9830 above .90
59590 [QUA377 269.000] TO BUS 59601 [HOC404 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59427 COM381 269.0	0.9491	1.0049 above .90
59635 [FRP217 134.500] TO BUS 59639 [DUN283 134.500] CKT 1 VOLTAGE GREATER THAN 1.0500: VOLTAGE LESS THAN 0.9500:		59635 FRP217 134.5 59637 HUM308 134.5 59639 DUN283 134.5 59640 COL318 134.5	1.0528 0.9168 0.9151 0.9027	1.0258 above .90 0.9949 above .90 1.0098 above .90 0.9818 above .90
59637 [HUM308 134.500] TO BUS 59639 [DUN283 134.500] CKT 1 VOLTAGE GREATER THAN 1.0500: VOLTAGE LESS THAN 0.9500:		59635 FRP217 134.5 59639 DUN283 134.5 59637 HUM308 134.5 59640 COL318 134.5	1.0530 1.0514 0.9218 0.9077	1.0258 above .90 1.0098 above .90 0.9949 above .90 0.9818 above .90

2000 FALL PEAK ST. JOSEPH LIGHT AND POWER - AREA 679

NONE

VOLTAGE REPORT TABLE

2000 WINTER PEAK, MISSOURI PUBLIC SERVICE - AREA 540

(OUTAGED BRANCH) (VOLTAGE RANGE)		(X---- BUS ----X)	V-CONT	V-INIT
59285 [GRDWCTY269.000] TO BUS 59286 [GRDWST 269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59287 MARTCTY269.0	1.0501	1.0218 LTC
59286 [GRDWST 269.000] TO BUS 59287 [MARTCTY269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59287 MARTCTY269.0	1.0615	1.0218 LTC
59307 [NEVPLT 269.000] TO BUS 59308 [NEVADA 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59306 APCITY 269.0 59307 NEVPLT 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.9148 0.8629 0.8617 0.8418	1.0047 Switch 1.0158 Switch 1.0150 Switch 0.9986 Switch
59242 [CLINTON5161.00] TO BUS 96071 [5CLINTN 161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59242 CLINTONS 161 59301 CLNTPLT269.0 59302 CLNTGRN269.0 59303 CLINTON269.0 59305 URICH 269.0	0.9435 0.9378 0.9370 0.9375 0.9495	1.0335 Acceptable 1.0188 Acceptable 1.0186 Acceptable 1.0208 Acceptable 1.0085 Acceptable
CONTINGENCY SPP-12				
59207 [ARCHIS 5161.00] TO BUS 59240 [ADRIAN 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59216 BUTLER_5 161	0.9375	1.0158 Acceptable
59216 [BUTLER_5 161.00] TO BUS 59240 [ADRIAN 5161.00]	CKT 1			
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5 161.00]	CKT 1			

2000 WINTER PEAK, EMPIRE DISTRICT ELECTRIC - AREA 544

(OUTAGED BRANCH) (VOLTAGE RANGE)		(X---- BUS ----X)	V-CONT	V-INIT
59464 [BOL 73 5161.00] TO BUS 59528 [BOL 73 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59425 HER209 269.0 59432 BUF243J269.0 59433 STRKAMO269.0 59434 BUF409 269.0 59528 BOL 73 269.0 59529 SEP 80 269.0 59545 FRP217 269.0 59547 BUF243 269.0 59567 BRT323 269.0 59572 FQC333 269.0 59575 BUF342 269.0 59576 REP345 269.0 59580 REP359 269.0 59584 BOL367 269.0 59587 STR370 269.0 59596 FRG397 269.0 59612 BOL602 269.0 59637 HUM308 134.5 59640 COL318 134.5	0.8877 0.9019 0.9361 0.8837 0.9087 0.9444 0.9445 0.9017 0.9258 0.9044 0.8929 0.9496 0.9442 0.9094 0.9257 0.9233 0.9132 0.9346 0.9182	0.9848 capacitor 69kv 0.9670 above .90 0.9784 above .90 0.9589 capacitor 69kv 1.0034 above .90 0.9872 above .90 0.9963 above .90 0.9668 above .90 0.9925 above .90 0.9673 above .90 0.9673 capacitor 69kv 0.9730 above .90 0.9650 above .90 0.9900 above .90 0.9741 above .90 0.9740 above .90 0.9893 above .90 0.9707 above .90 0.9549 above .90

VOLTAGE REPORT TABLE

(OUTAGED BRANCH) (VOLTAGE RANGE)		(X---- BUS ----X)	V-CONT	V-INIT
59478 [DAD368 5161.00] TO BUS 59585 [DAD368 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59637 HUM308 134.5 59640 COL318 134.5	0.9425 0.9263	0.9707 above .90 0.9549 above .90
59479 [LAR382 5161.00] TO BUS 59480 [MON383 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59404 PUR390 269.0	0.9498	0.9711 above .90
59480 [MON383 5161.00] TO BUS 59591 [MON383 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59400 MON376J269.0 59401 MON376 269.0 59402 MON416J269.0 59403 MON416 269.0 59404 PUR390 269.0 59422 GNB347 269.0 59430 SAR362 269.0 59544 WEN205 269.0	0.9341 0.9331 0.9295 0.9293 0.9120 0.9459 0.9438 0.9498	0.9919 above .90 0.9909 above .90 0.9876 above .90 0.9873 above .90 0.9711 above .90 0.9701 above .90 0.9809 above .90 0.9908 above .90

59487 [HOC404 5161.00] TO BUS 59601 [HOC404 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59420 WEL186 134.5	0.9388	0.9656 above .90
59528 [BOL 73 269.000] TO BUS 59575 [BUF342 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59432 BUF243J269.0	0.9099	0.9670 above .90
	59434 BUF409 269.0	0.8853	0.9589 capacitor 69kv
	59547 BUF243 269.0	0.9097	0.9668 above .90
	59572 FGC333 269.0	0.9138	0.9673 above .90
	59575 BUF342 269.0	0.8945	0.9673 capacitor 69kv
	59587 STR370 269.0	0.9425	0.9741 above .90
	59596 FRG397 269.0	0.9407	0.9740 above .90
	59584 BOL367 269.0	0.9202	0.9900 above .90
	59612 BOL602 269.0	0.9237	0.9893 above .90
	59637 HUM308 134.5	0.9421	0.9707 above .90
	59640 COL318 134.5	0.9259	0.9549 above .90
	59432 BUF243J269.0	0.9457	0.9670 above .90
	59547 BUF243 269.0	0.9456	0.9668 above .90
	59572 FGC333 269.0	0.9449	0.9673 above .90
	59587 STR370 269.0	0.9474	0.9741 above .90
	59596 FRG397 269.0	0.9457	0.9740 above .90
	59424 REB364 269.0	0.9142	0.9833 above .90
	59552 LAW260 269.0	0.9371	0.9877 above .90
	59553 ALB262 269.0	0.9154	0.9845 above .90
	59573 HTC338 269.0	0.9242	0.9858 above .90
	59577 MTV351 269.0	0.9080	0.9852 above .90
	59578 AUR355 269.0	0.9007	0.9934 above .90
	59606 MTV420 269.0	0.9072	0.9858 above .90
	59546 BIL221 269.0	0.8927	0.9679 capacitor 69kv
	59576 REP345 269.0	0.9231	0.9730 above .90
	59580 REP359 269.0	0.9030	0.9650 above .90
	59611 MAR437 269.0	0.8802	0.9799 capacitor 69kv
	59422 GNB347 269.0	0.9457	0.9701 above .90
	59546 BIL221 269.0	0.9261	0.9679 above .90
	59576 REP345 269.0	0.9126	0.9730 above .90
	59580 REP359 269.0	0.9129	0.9650 above .90
	59524 NEO 56 269.0	0.9422	0.9932 above .90
	59563 LIN314 269.0	0.9406	0.9951 above .90
	59422 GNB347 269.0	0.9493	0.9701 above .90
	59430 SAR362 269.0	0.9487	0.9809 above .90
	59422 GNB347 269.0	0.9436	0.9701 above .90
	59430 SAR362 269.0	0.9398	0.9809 above .90
	59544 WEN205 269.0	0.9450	0.9908 above .90
	59582 SAR362T269.0	0.9462	0.9870 above .90
	59637 HUM308 134.5	0.9461	0.9707 above .90
	59640 COL318 134.5	0.9300	0.9549 above .90

VOLTAGE REPORT TABLE

OUTAGED BRANCH		VOLTAGE RANGE	(X--- BUS ---X)	V-CONT	V-INIT
59545 [FRP217 269.000] TO BUS 59635 [FRP217 134.500]	CKT 1	VOLTAGE LESS THAN 0.9500:	59635 FRP217 134.5 59637 HUM308 134.5 59639 DUN283 134.5 59640 COL318 134.5 59641 CAP304 134.5	0.8412 0.8435 0.8413 0.8252 0.9445	1.0195 provide solut. 0.9707 provide solut. 0.9942 provide solut. 0.9549 provide solut.
59546 [BIL221 269.000] TO BUS 59611 [MAR437 269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59546 BIL221 269.0 59580 REP359 269.0	0.9337 0.9370	1.0110 above .90 0.9679 above .90 0.9650 above .90
59568 [STK324 269.000] TO BUS 59616 [STK631J269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59568 STK324 269.0 59637 HUM308 134.5 59638 STK324 134.5 59640 COL318 134.5 59641 CAP304 134.5	0.8998 0.9247 0.9240 0.9087 0.9239	1.0007 capacitor 69kv 0.9707 above .90 1.0332 above .90 0.9549 above .90
59568 [STK324 269.000] TO BUS 59638 [STK324 134.500]	CKT 1	VOLTAGE LESS THAN 0.9500:	59637 HUM308 134.5 59638 STK324 134.5 59640 COL318 134.5 59641 CAP304 134.5	0.9254 0.9248 0.9094 0.9247	1.0110 above .90 0.9707 above .90 1.0332 above .90 0.9549 above .90
59570 [OZK330 269.000] TO BUS 59604 [BHJ415 269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59570 OZK330 269.0 59609 OZK434 269.0	0.9107 0.9141	1.0110 above .90 1.0094 above .90 1.0055 above .90
59572 [FGC333 269.000] TO BUS 59596 [FRG397 269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59432 BUF243J269.0 59547 BUF243 269.0 59572 FGC333 269.0	0.9458 0.9457 0.9455	0.9670 above .90 0.9668 above .90 0.9673 above .90
59576 [REP345 269.000] TO BUS 59580 [REP359 269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59546 BIL221 269.0 59580 REP359 269.0	0.9263 0.9132	0.9679 above .90 0.9650 above .90
59578 [AUR355 269.000] TO BUS 59606 [MTV420 269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59424 RES364 269.0 59553 ALB262 269.0 59577 MTV351 269.0 59606 MTV420 269.0	0.9478 0.9491 0.9454 0.9452	0.9833 above .90 0.9845 above .90 0.9852 above .90 0.9858 above .90
59590 [QUA377 269.000] TO BUS 59601 [HOC404 269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59427 COM381 269.0 59579 COM381T269.0 59590 QUA377 269.0	0.9407 0.9456 0.9441	1.0032 above .90 1.0078 above .90 1.0090 above .90
59605 [STK418 269.000] TO BUS 59614 [SK631CJ269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59568 STK324 269.0 59614 SK631CJ269.0 59616 STK631J269.0 59637 HUM308 134.5 59640 COL318 134.5	0.9468 0.9465 0.9469 0.9469 0.9310	1.0007 above .90 1.0013 above .90 1.0009 above .90 0.9707 above .90 0.9549 above .90
59635 [FRP217 134.500] TO BUS 59639 [DUN283 134.500]	CKT 1	VOLTAGE GREATER THAN 1.0500: VOLTAGE LESS THAN 0.9500:	59635 FRP217 134.5 59637 HUM308 134.5 59639 DUN283 134.5 59640 COL318 134.5 59641 CAP304 134.5	1.0558 0.8425 0.8401 0.8241 0.9439	1.0195 above .90 0.9707 provide solut. 0.9942 provide solut. 0.9549 provide solut.
59637 [HUM308 134.500] TO BUS 59639 [DUN283 134.500]	CKT 1	VOLTAGE GREATER THAN 1.0500: VOLTAGE LESS THAN 0.9500:	59635 FRP217 134.5 59639 DUN283 134.5 59637 HUM308 134.5 59640 COL318 134.5 59641 CAP304 134.5	1.0557 1.0541 0.8528 0.8346 0.9489	1.0195 above .90 0.9942 above .90 0.9707 provide solut. 0.9549 provide solut.
59637 [HUM308 134.500] TO BUS 59641 [CAP304 134.500]	CKT 1	VOLTAGE LESS THAN 0.9500:	59637 HUM308 134.5 59640 COL318 134.5	0.9256 0.9096	1.0110 above .90 0.9707 above .90 0.9549 above .90
59638 [STK324 134.500] TO BUS 59641 [CAP304 134.500]	CKT 1	VOLTAGE LESS THAN 0.9500:	59637 HUM308 134.5 59640 COL318 134.5 59641 CAP304 134.5	0.9238 0.9079 0.9224	0.9707 above .90 0.9549 above .90 1.0110 above .90

VOLTAGE REPORT TABLE

(OUTAGED BRANCH) (VOLTAGE RANGE) (X---- BUS ----X)		V-CONT	V-INIT	
59497 [RVS438 5161.00] TO BUS 52672 [TABLE R5161.00] CKT 1	VOLTAGE LESS THAN 0.9500:	59474 OZD312 5 161 59475 BRN331 5 161 59482 HOL387 5 161 59488 BRN412 5 161 59489 BRN413 5 161 59492 RDS424 5 161 59495 GRT433 5 161 59497 RVS438 5 161	0.9464 0.9439 0.9443 0.9439 0.9425 0.9478 0.9430 0.9428	0.9880 above .90 0.9856 above .90 0.9894 above .90 0.9855 above .90 0.9885 above .90 0.9805 above .90 0.9868 above .90 0.9912 above .90
59605 [STK418 269.000] TO BUS 96118 [5STKAEC 161.00] CKT 1	VOLTAGE LESS THAN 0.9500:	59568 STK324 269.0 59605 STK418 269.0 59614 SK631CJ269.0 59616 STK631J269.0 59637 HUM308 134.5 59640 COL318 134.5	0.9470 0.9466 0.9466 0.9471 0.9470 0.9311	1.0007 above .90 1.0022 above .90 1.0013 above .90 1.0009 above .90 0.9707 above .90 0.9549 above .90
2000 WINTER PEAK, ST. JOSEPH LIGHT AND POWER - AREA 679			NONE	
2001 APRIL MINIMUM, 540				
(OUTAGED BRANCH) (VOLTAGE RANGE) (X---- BUS ----X)		V-CONT	V-INIT	
BASE CASE	VOLTAGE GREATER THAN 1.0500:	59207 ARCHIE 5 161 59208 NEVADA 5 161 59209 SEDALIAS 161 59210 MARTCTY5 161 59216 BUTLER_5 161 59217 WINDSR 5 161 59234 WAFB 5 161 59239 HBNVL 5 161 59240 ADRIAN 5 161 59241 SEDEASTS 161 59242 CLINTON5 161	1.0556 1.0522 1.0575 1.0501 1.0548 1.0652 1.0515 1.0520 1.0552 1.0602 1.0710	1.0556 Acceptable 1.0522 Acceptable 1.0575 Acceptable 1.0501 Acceptable 1.0548 Acceptable 1.0652 Acceptable 1.0515 Acceptable 1.0520 Acceptable 1.0552 Acceptable 1.0602 Acceptable 1.0710 Acceptable
2001 APRIL MINIMUM, 544				
(OUTAGED BRANCH) (VOLTAGE RANGE) (X---- BUS ----X)		V-CONT	V-INIT	
59481 [MON383 7345.00] TO BUS 53140 [FLINTCR7345.00] CKT 1	VOLTAGE GREATER THAN 1.0500:	59481 MON383 7 345	1.0658 1.0418 above .90	
2001 APRIL MINIMUM, 679		NONE		
2001 FALL PEAK, 540				
(OUTAGED BRANCH) (VOLTAGE RANGE) (X---- BUS ----X)		V-CONT	V-INIT	
59307 [NEVPLT 269.000] TO BUS 59308 [NEVADA 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59306 APCITY 269.0 59307 NEVPLT 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.9201 0.8717 0.8707 0.8520	1.0093 Switch 1.0214 Switch 1.0206 Switch 1.0051 Switch
59308 [NEVADA 269.000] TO BUS 59309 [METZ 269.000] CKT 1	VOLTAGE GREATER THAN 1.0500:	59159 NEVADA#113.2 59307 NEVPLT 269.0 59308 NEVADA 269.0 59311 NEVJCT 269.0	1.0536 1.0509 1.0536 1.0502	1.0236 LTC 1.0214 LTC 1.0236 LTC 1.0206 LTC
59242 [CLINTON5161.00] TO BUS 96071 [5CLINTN 161.00] CKT 1	VOLTAGE LESS THAN 0.9500:	59301 CLNTPLT269.0 59302 CLNTGRN269.0 59303 CLINTON269.0	0.9459 0.9451 0.9456	1.0177 Acceptable 1.0176 Acceptable 1.0195 Acceptable

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
CONTINGENCY SPP-12	VOLTAGE LESS THAN 0.9500:	59216 BUTLER_5 161	0.9416	1.0170 Acceptable
59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00]	CKT 1			
59216 [BUTLER_5161.00] TO BUS 59240 [ADRIAN 5161.00]	CKT 1			
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER 5161.00]	CKT 1			

2001 FALL PEAK, EMPIRE DISTRICT ELECTRIC - AREA 544

OUTAGED BRANCH		VOLTAGE RANGE	(X--- BUS ---X)	V-CONT	V-INIT
59464 [BOL 73 5161.00]	TO BUS 59528 [BOL 73 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59425 HER209 269.0 59432 BUF243J269.0 59434 BUF409 269.0 59528 BOL 73 269.0 59547 BUF243 269.0 59572 FGC333 269.0 59575 BUF342 269.0 59584 BOL367 269.0	0.9336 0.9414 0.9292 0.9480 0.9412 0.9431 0.9356 0.9487	0.9839 above .90 0.9731 above .90 0.9665 above .90 0.9974 above .90 0.9729 above .90 0.9735 above .90 0.9727 above .90 0.9901 above .90
59478 [DAD368 5161.00]	TO BUS 59493 [BOL431 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59434 BUF409 269.0	0.9451	0.9665 above .90
59480 [MON383 5161.00]	TO BUS 59591 [MON383 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59400 MON376J269.0 59401 MON376 269.0 59402 MON416J269.0 59403 MON416 269.0 59404 PUR390 269.0 59405 MON352J269.0 59406 MON352 269.0 59407 MON311J269.0 59408 MON311 269.0	0.9297 0.9286 0.9250 0.9247 0.9076 0.9497 0.9496 0.9491 0.9490	0.9835 above .90 0.9825 above .90 0.9791 above .90 0.9788 above .90 0.9627 above .90 1.0022 above .90 1.0022 above .90 1.0017 above .90 1.0016 above .90
59528 [BOL 73 269.000]	TO BUS 59575 [BUF342 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59432 BUF243J269.0 59434 BUF409 269.0 59547 BUF243 269.0 59572 FGC333 269.0 59575 BUF342 269.0	0.9371 0.9198 0.9370 0.9401 0.9262	0.9731 above .90 0.9665 above .90 0.9729 above .90 0.9735 above .90 0.9727 above .90
59545 [PRP217 269.000]	TO BUS 59635 [PRP217 134.500]	CKT 1 VOLTAGE LESS THAN 0.9500:	59635 FRP217 134.5 59637 HUM308 134.5 59639 DUN283 134.5	0.9080 0.9105 0.9083	1.0295 above .90 0.9949 above .90 1.0113 above .90
59546 [BIL221 269.000]	TO BUS 59580 [REP359 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59640 COL318 134.5	0.8964	0.9818 provide solut.
59568 [STK324 269.000]	TO BUS 59616 [STK631J269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59580 REP359 269.0	0.9369	0.9856 above .90
59570 [OZK330 269.000]	TO BUS 59604 [BHJ415 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59568 STK324 269.0 59570 OZK330 269.0	0.9481 0.9181	1.0002 above .90 1.0111 above .90
59590 [QUA377 269.000]	TO BUS 59601 [HOC404 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59609 OZK434 269.0	0.9211	1.0071 above .90
59635 [PRP217 134.500]	TO BUS 59639 [DUN283 134.500]	CKT 1 VOLTAGE GREATER THAN 1.0500: VOLTAGE LESS THAN 0.9500:	59427 COM381 269.0 59635 FRP217 134.5 59637 HUM308 134.5	0.9475 1.0548 0.9095	1.0048 above .90 1.0295 above .90 0.9949 above .90
59637 [HUM308 134.500]	TO BUS 59639 [DUN283 134.500]	CKT 1 VOLTAGE GREATER THAN 1.0500: VOLTAGE LESS THAN 0.9500:	59639 DUN283 134.5 59640 COL318 134.5	0.9072 0.8954	1.0113 above .90 0.9818 above .90
Sche		VOLTAGE LESS THAN 0.9500:	59635 FRP217 134.5 59639 DUN283 134.5 59637 HUM308 134.5 59640 COL318 134.5	1.0548 1.0526 0.9175 0.9034	1.0295 above .90 1.0113 above .90 0.9949 above .90 0.9818 above .90

VOLTAGE REPORT TABLE

(OUTAGED BRANCH) (VOLTAGE RANGE)	(X--- BUS ---X)	V-CONT	V-INIT
59478 [DAD368 5161.00] TO BUS 96101 [SMORGAN 161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59434 BUF409 269.0 59575 BUF342 269.0	0.9417 0.9481	0.9665 above .90 0.9727 above .90
2001 FALL PEAK, ST. JOSEPH LIGHT AND POWER - AREA 679	NONE		
2001 SUMMER PEAK, MISSOURI PUBLIC SERVICE - AREA 540			
(OUTAGED BRANCH) (VOLTAGE RANGE)	(X--- BUS ---X)	V-CONT	V-INIT
59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59159 NEVADA#113.2 59208 NEVADA 5 161 59216 BUTLER_5 161 59240 ADRIAN 5 161 59306 APCITY 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59310 3M 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.9442 0.9215 0.9172 0.9159 0.9443 0.9408 0.9442 0.9214 0.9147 0.9390 0.9093	1.0118 Acceptable 0.9800 Acceptable 0.9969 Acceptable 1.0049 Acceptable 0.9932 Acceptable 1.0080 Acceptable 1.0118 Acceptable 0.9907 Acceptable 0.9845 Acceptable 1.0064 Acceptable 0.9790 Acceptable
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59208 NEVADA 5 161 59309 METZ 269.0 59310 3M 269.0 59312 LAMAR 269.0	0.9388 0.9418 0.9353 0.9299	0.9800 Acceptable 0.9907 Acceptable 0.9845 Acceptable 0.9790 Acceptable
59208 [NEVADA 5161.00] TO BUS 59308 [NEVADA 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59310 3M 269.0	0.9461	0.9845 Generation
59209 [SEDALIA5161.00] TO BUS 59271 [SEDN 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59312 LAMAR 269.0 59276 COLECMP269.0 59277 WARSAW 269.0	0.9406 0.9366 0.9223	0.9790 Generation 0.9881 Acceptable 0.9745 Acceptable
59209 [SEDALIA5161.00] TO BUS 59272 [SEDS 269.000] CKT 1 VOLTAGE LESS THAN 0.9500: 59216 [BUTLER_5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59277 WARSAW 269.0 59208 NEVADA 5 161 59216 BUTLER_5 161 59309 METZ 269.0 59310 3M 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.9471 0.9308 0.9294 0.9322 0.9256 0.9495 0.9202	0.9745 Shift Load-161 0.9800 Acceptable 0.9969 Acceptable 0.9907 Acceptable 0.9845 Acceptable 1.0064 Acceptable 0.9790 Acceptable
59225 [PHILL 5161.00] TO BUS 59280 [PHILL 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59154 RGREEN#313.2 59279 RGREEN 269.0 59280 PHILL 269.0 59288 RGAFB 269.0 59289 BELTON 269.0 59290 BELTONS269.0 59291 FREEMAN269.0	0.9252 0.9252 0.9246 0.9367 0.9300 0.9195 0.9342	1.0090 Generation 1.0090 Generation 1.0111 Generation 0.9868 Generation 0.9836 Generation 0.9792 Generation 0.9871 Generation
59239 [HSNVL 5161.00] TO BUS 59295 [HSNVL 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59290 BELTONS269.0 59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59295 HSNVL 269.0 59296 HSNVLW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.9487 0.9298 0.9266 0.9265 0.9266 0.9276 0.9286 0.9313 0.9259 0.9259	0.9792 Generation 0.9871 Generation 1.0089 Generation 1.0098 Generation 1.0122 Generation 1.0162 Generation 1.0120 Generation 1.0063 Generation 1.0095 Generation 1.0095 Generation

VOLTAGE REPORT TABLE

(	OUTAGED BRANCH	) (	VOLTAGE RANGE	) (X---- BUS ----X)	V-CONT	V-INIT
59260	[RNRDGE 269.000] TO BUS 59261 [STALEY 269.000]	CKT 1	VOLTAGE GREATER THAN 1.0500:	59260 RNRDGE 269.0	1.0516	1.0125 LTC
59279	[RGREEN 269.000] TO BUS 59280 [PHILL 269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59154 RGREEN#313.2	0.9412	1.0090 Generation
59280	[PHILL 269.000] TO BUS 59290 [BELTONS269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59279 RGREEN 269.0	0.9412	1.0090 Generation
59284	[GRDVWTP269.000] TO BUS 59288 [RGAFB 269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59288 RGAFB 269.0	0.9455	0.9868 Acceptable
				59289 BELTON 269.0	0.9391	0.9836 Acceptable
				59290 BELTONS269.0	0.9297	0.9792 Acceptable
				59288 RGAFB 269.0	0.9228	0.9868 Generation
				59289 BELTON 269.0	0.9234	0.9836 Generation
				59290 BELTONS269.0	0.9255	0.9792 Generation
				59291 FREEMAN269.0	0.9468	0.9871 Generation
59285	[GRDWCTY269.000] TO BUS 59286 [GRDWST 269.000]	CKT 1	VOLTAGE GREATER THAN 1.0500:	59286 GRDWST 269.0	1.0531	1.0088 LTC
59286	[GRDWST 269.000] TO BUS 59287 [MARTCTY269.000]	CKT 1	VOLTAGE GREATER THAN 1.0500:	59287 MARTCTY269.0	1.0560	1.0160 LTC
59288	[RGAFB 269.000] TO BUS 59289 [BELTON 269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59289 BELTON 269.0	0.9340	0.9836 Acceptable
59289	[BELTON 269.000] TO BUS 59290 [BELTONS269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59290 BELTONS269.0	0.9351	0.9792 Acceptable
59293	[HSNVLW 269.000] TO BUS 59294 [HSNVLS 269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59291 FREEMAN269.0	0.9460	0.9871 Acceptable
				59292 ANCONDA269.0	0.9413	1.0089 Acceptable
				59293 HSNVLW 269.0	0.9411	1.0098 Acceptable
				59291 FREEMAN269.0	0.9317	0.9871 Acceptable
				59292 ANCONDA269.0	0.9187	1.0089 Acceptable
				59293 HSNVLW 269.0	0.9182	1.0098 Acceptable
				59294 HSNVLS 269.0	0.9174	1.0122 Acceptable
59307	[NEVPLT 269.000] TO BUS 59308 [NEVADA 269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59304 URICHTP269.0	0.8716	1.0018 Switches
				59305 URICH 269.0	0.8686	0.9992 Switches
				59306 APCITY 269.0	0.7779	0.9932 Switches
				59307 NEVPLT 269.0	0.6570	1.0080 Switches
				59311 NEVJCT 269.0	0.6543	1.0064 Switches
				59312 LAMAR 269.0	0.6113	0.9790 Switches
59308	[NEVADA 269.000] TO BUS 59309 [METZ 269.000]	CKT 1	VOLTAGE GREATER THAN 1.0500:	59159 NEVADA#113.2	1.0745	1.0118 LTC
59309	[METZ 269.000] TO BUS 59310 [3M 269.000]	CKT 1	VOLTAGE GREATER THAN 1.0500:	59307 NEVPLT 269.0	1.0699	1.0080 LTC
				59308 NEVADA 269.0	1.0745	1.0118 LTC
				59311 NEVJCT 269.0	1.0685	1.0064 LTC
				59159 NEVADA#113.2	1.0604	1.0118 LTC
				59307 NEVPLT 269.0	1.0560	1.0080 LTC
				59308 NEVADA 269.0	1.0604	1.0118 LTC
				59309 METZ 269.0	1.0552	0.9907 LTC
				59311 NEVJCT 269.0	1.0546	1.0064 LTC
59242	[CLINTON5161.00] TO BUS 96071 [5CLINTN 161.00]	CKT 1	VOLTAGE LESS THAN 0.9500:	59242 CLINTON5 161	0.8363	1.0221 Accept Risk
				59300 POSTOAK269.0	0.9033	1.0102 Accept Risk
				59301 CLNTPLT269.0	0.8524	1.0165 Accept Risk
				59302 CLNTGRN269.0	0.8509	1.0164 Accept Risk
				59303 CLINTON269.0	0.8519	1.0201 Accept Risk
				59304 URICHTP269.0	0.8755	1.0018 Accept Risk
				59305 URICH 269.0	0.8726	0.9992 Accept Risk
				59306 APCITY 269.0	0.9042	0.9932 Accept Risk
				59312 LAMAR 269.0	0.9461	0.9790 Accept Risk

VOLTAGE REPORT TABLE

(OUTAGED BRANCH CONTINGENCY SPP-12	) ( VOLTAGE RANGE	) (X---- BUS ----X)	V-CONT	V-INIT
59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1	VOLTAGE LESS THAN 0.9500:	59208 NEVADA 5 161	0.9292	0.9800 Acceptable
59216 [BUTLER_5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1		59216 BUTLER_5 161	0.9106	0.9969 Acceptable
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5161.00] CKT 1		59307 NEVPLT 269.0	0.9496	1.0080 Acceptable
		59309 METZ 269.0	0.9305	0.9907 Acceptable
		59310 3M 269.0	0.9239	0.9845 Acceptable
		59311 NEVJCT 269.0	0.9479	1.0064 Acceptable
		59312 LAMAR 269.0	0.9184	0.9790 Acceptable
2001 SUMMER PEAK, 544				
(OUTAGED BRANCH BASE CASE	) ( VOLTAGE RANGE	) (X---- BUS ----X)	V-CONT	V-INIT
	VOLTAGE LESS THAN 0.9500:			
59433 [STRKAMO269.000] TO BUS 59604 [BHJ415 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59416 CHE299T134.5	0.9412	0.9412 above .90
59436 [CUPTAP 269.000] TO BUS 59585 [DAD368 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59417 CHE299 134.5	0.9382	0.9382 above .90
59464 [BOL 73 5161.00] TO BUS 59528 [BOL 73 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59418 CHE300 134.5	0.9407	0.9407 above .90
		59419 TWN388 134.5	0.9399	0.9399 above .90
		59420 WEL186 134.5	0.9182	0.9182 above .90
		59433 STRKAMO269.0	0.9462	0.9685 above .90
		59436 CUPTAP 269.0	0.9464	0.9967 above .90
		59437 CUPSUB 269.0	0.9458	0.9961 above .90
		59425 HER209 269.0	0.8959	0.9720 capacitor 69kv
		59432 BUF243J269.0	0.9109	0.9602 above .90
		59433 STRKAMO269.0	0.9372	0.9685 above .90
		59434 BUF409 269.0	0.8961	0.9535 capacitor 69kv
		59528 BOL 73 269.0	0.9170	0.9913 above .90
		59529 SED 80 269.0	0.9449	0.9762 above .90
		59545 FRP217 269.0	0.9461	0.9855 above .90
		59547 BUF243 269.0	0.9107	0.9600 above .90
		59567 BRT323 269.0	0.9301	0.9811 above .90
		59572 FGC333 269.0	0.9130	0.9605 above .90
		59575 BUF342 269.0	0.9037	0.9606 above .90
		59584 BOL367 269.0	0.9189	0.9814 above .90
		59587 STR370 269.0	0.9289	0.9648 above .90
		59596 FRG397 269.0	0.9273	0.9649 above .90
		59612 BOL602 269.0	0.9217	0.9806 above .90
		59637 HUM308 134.5	0.9432	0.9699 above .90
		59640 COL318 134.5	0.9255	0.9526 above .90
		59691 WIL369 269.0	0.9483	0.9722 above .90
		59436 CUPTAP 269.0	0.9500	0.9967 above .90
		59437 CUPSUB 269.0	0.9494	0.9961 above .90
		59637 HUM308 134.5	0.9467	0.9699 above .90
		59640 COL318 134.5	0.9292	0.9526 above .90
		59691 WIL369 269.0	0.9498	0.9722 above .90
		59404 PUR390 269.0	0.9351	0.9645 above .90
		59468 AUR124 5 161	0.9480	0.9692 above .90
		59480 MON383 5 161	0.9351	0.9644 above .90
		59400 MON376J269.0	0.9388	0.9916 above .90
		59401 MON376 269.0	0.9376	0.9905 above .90
		59402 MON416J269.0	0.9331	0.9863 above .90
		59403 MON416 269.0	0.9328	0.9860 above .90
		59404 PUR390 269.0	0.9097	0.9645 above .90

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59487 [HOC404 5161.00] TO BUS 59601 [HOC404 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59416 CHE299T134.5 59417 CHE299 134.5 59418 CHE300 134.5 59419 TWN388 134.5 59420 WEI186 134.5	0.9072 0.9042 0.9067 0.9059 0.8837	0.9412 above .90 0.9382 above .90 0.9407 above .90 0.9399 above .90 0.9182 provide solut.
59528 [BOL 73 269.000] TO BUS 59575 [BUF342 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59432 BUF243J269.0 59433 STRKAMO269.0 59434 BUF409 269.0 59547 BUF243 269.0 59572 FQC333 269.0 59575 BUF342 269.0 59587 STR370 269.0 59596 FRG397 269.0	0.9142 0.9471 0.8939 0.9140 0.9176 0.9015 0.9398 0.9386	0.9602 above .90 0.9685 above .90 0.9535 capacitor 69kv 0.9600 above .90 0.9605 above .90 0.9606 above .90 0.9648 above .90 0.9649 above .90
59528 [BOL 73 269.000] TO BUS 59584 [BOL367 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59584 BOL367 269.0 59612 BOL602 269.0 59637 HUM308 134.5 59640 COL318 134.5	0.9315 0.9337 0.9497 0.9322	0.9814 above .90 0.9806 above .90 0.9699 above .90 0.9526 above .90
59529 [SED 80 269.000] TO BUS 59596 [FRG397 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59587 STR370 269.0 59596 FRG397 269.0	0.9425 0.9413	0.9648 above .90 0.9649 above .90
59537 [AUR124 269.000] TO BUS 59578 [AUR355 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59577 MTV351 269.0 59578 AUR355 269.0 59606 MTV420 269.0	0.9440 0.9343 0.9429	0.9792 above .90 0.9906 above .90 0.9800 above .90
59538 [DIA131 269.000] TO BUS 59595 [RNM393 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59422 GNB347 269.0	0.9451	0.9807 above .90
59541 [RIV167 269.000] TO BUS 59602 [RIV406 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59420 WEI186 134.5	0.8979	0.9182 provide solut.
59543 [NEO184 269.000] TO BUS 59563 [LIN314 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59524 NEO 56 269.0 59563 LIN314 269.0	0.9326 0.9308	0.9835 above .90 0.9852 above .90
59545 [FRP217 269.000] TO BUS 59635 [FRP217 134.500] CKT 1	VOLTAGE LESS THAN 0.9500:	59635 FRP217 134.5 59637 HUM308 134.5 59639 DUN283 134.5 59640 COL318 134.5	0.8579 0.8605 0.8585 0.8419	1.0129 provide solut. 0.9699 provide solut. 0.9908 provide solut. 0.9526 provide solut.
59546 [BIL221 269.000] TO BUS 59580 [REP359 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59641 CAP304 134.5 59576 REP345 269.0 59580 REP359 269.0	0.9413 0.9260 0.9097	0.9998 above .90 0.9724 above .90 0.9681 above .90
59568 [STK324 269.000] TO BUS 59616 [STK631J269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59568 STK324 269.0 59637 HUM308 134.5 59638 STK324 134.5 59640 COL318 134.5	0.9141 0.9395 0.9386 0.9221	0.9837 above .90 0.9699 above .90 1.0162 above .90 0.9526 above .90
59568 [STK324 269.000] TO BUS 59638 [STK324 134.500] CKT 1	VOLTAGE LESS THAN 0.9500:	59641 CAP304 134.5 59637 HUM308 134.5 59638 STK324 134.5 59640 COL318 134.5	0.9385 0.9400 0.9392 0.9226	0.9998 above .90 0.9699 above .90 1.0162 above .90 0.9526 above .90
59570 [OZK330 269.000] TO BUS 59604 [BHJ415 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59641 CAP304 134.5 59570 OZK330 269.0 59609 OZK434 269.0	0.9390 0.8844 0.8893	0.9998 above .90 0.9978 provide solut. 0.9946 provide solut.
59590 [QUA377 269.000] TO BUS 59601 [HOC404 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59427 COM381 269.0 59579 COM381T269.0 59590 QUA377 269.0	0.9111 0.9193 0.9173	0.9919 above .90 0.9993 above .90 1.0009 above .90

VOLTAGE REPORT TABLE

OUTAGED BRANCH		VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59605 [STK418 269.000]	TO BUS 59614 [SK631CJ269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59549 ARC250 269.0 59550 GLD251 269.0 59568 STK324 269.0 59598 LKW400 269.0 59613 GRN614 269.0 59614 SK631CJ269.0 59616 STK631J269.0 59637 HUM308 134.5 59640 COL318 134.5 59637 HUM308 134.5 59639 DUN283 134.5 59640 COL318 134.5 59641 CAP304 134.5 59637 HUM308 134.5 59640 COL318 134.5 59641 CAP304 134.5 59637 HUM308 134.5 59640 COL318 134.5 59641 CAP304 134.5 59478 DAD368 5 161 59473 RDS295 5 161 59474 OZD312 5 161 59475 BRN331 5 161 59482 HOL387 5 161 59488 BRN412 5 161 59489 BRN413 5 161 59492 RDS424 5 161 59495 GRT433 5 161 59497 RV8438 5 161 59549 ARC250 269.0 59550 GLD251 269.0 59568 STK324 269.0 59598 LKW400 269.0 59605 STK418 269.0 59613 GRN614 269.0 59614 SK631CJ269.0 59616 STK631J269.0 59637 HUM308 134.5 59640 COL318 134.5	0.9367 0.9486 0.9302 0.9437 0.9434 0.9297 0.9303 0.9446 0.9271 0.8596 0.8575 0.8410 0.9407 0.8654 0.8468 0.9434 0.9400 0.9226 0.9384 0.9210 0.9369 0.9496 0.9346 0.9319 0.9295 0.9301 0.9294 0.9284 0.9324 0.9287 0.9287 0.9369 0.9486 0.9304 0.9438 0.9299 0.9435 0.9299 0.9304 0.9447 0.9272	0.9803 above .90 0.9730 above .90 0.9837 above .90 0.9735 above .90 0.9762 above .90 0.9842 above .90 0.9838 above .90 0.9699 above .90 0.9526 above .90 0.9699 provide solut. 0.9908 provide solut. 0.9526 provide solut. 0.9998 above .90 0.9699 provide solut. 0.9526 provide solut. 0.9998 above .90 0.9699 above .90 0.9526 above .90 0.9998 above .90 0.9666 above .90 0.9755 above .90 0.9732 above .90 0.9776 above .90 0.9731 above .90 0.9770 above .90 0.9665 above .90 0.9749 above .90 0.9800 above .90 0.9803 above .90 0.9730 above .90 0.9837 above .90 0.9735 above .90 0.9851 above .90 0.9762 above .90 0.9842 above .90 0.9838 above .90 0.9699 above .90 0.9526 above .90
59635 [FRP217 134.500]	TO BUS 59639 [DUN283 134.500]	CKT 1 VOLTAGE LESS THAN 0.9500:			
59637 [HUM308 134.500]	TO BUS 59639 [DUN283 134.500]	CKT 1 VOLTAGE LESS THAN 0.9500:			
59637 [HUM308 134.500]	TO BUS 59641 [CAP304 134.500]	CKT 1 VOLTAGE LESS THAN 0.9500:			
59638 [STK324 134.500]	TO BUS 59641 [CAP304 134.500]	CKT 1 VOLTAGE LESS THAN 0.9500:			
59478 [DAD368 5161.00]	TO BUS 96101 [SMORGAN 161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:			
59497 [RVS438 5161.00]	TO BUS 52672 [TABLE R5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:			
59605 [STK418 269.000]	TO BUS 96110 [58TKAEC 161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:			

2001 SUMMER PEAK, ST. JOSEPH LIGHT AND POWER - AREA 679

NONE

2001 SPRING PEAK, MISSOURI PUBLIC SERVICE - AREA 540

OUTAGED BRANCH		VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59307 [NEVPLT 269.000]	TO BUS 59308 [NEVADA 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59306 APCITY 269.0 59307 NEVPLT 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.9094 0.8550 0.8538 0.8330	1.0017 Switch 1.0108 Switch 1.0099 Switch 0.9928 Switch

VOLTAGE REPORT TABLE

OUTAGED BRANCH		VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59242 [CLINTONS161.00]	TO BUS 96071 [5CLINTN 161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59242 CLINTONS 161	0.9386	1.0336 Acceptable
59301 CLNTPLT269.0			59301 CLNTGRN269.0	0.9329	1.0182 Acceptable
59302 CLNTGRN269.0			59302 CLINTON269.0	0.9320	1.0180 Acceptable
59303 CLINTON269.0			59303 URICHTP269.0	0.9326	1.0203 Acceptable
59304 URICHTP269.0			59304 URICH 269.0	0.9458	1.0081 Acceptable
59305 URICH 269.0			59305 161	0.9441	1.0065 Acceptable

CONTINGENCY SPP-12

59207 [ARCHIE 5161.00]	TO BUS 59240 [ADRIAN 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59216 BUTLER_5 161	0.9279	1.0082 Acceptable
59216 [BUTLER_5161.00]	TO BUS 59240 [ADRIAN 5161.00]	CKT 1			
59208 [NEVADA 5161.00]	TO BUS 59216 [BUTLER_5161.00]	CKT 1			

2001 SPRING PEAK -EMPIRE DISTRICT ELECTRIC - AREA 544

OUTAGED BRANCH		VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59464 [BOL 73 5161.00]	TO BUS 59528 [BOL 73 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59425 HER209 269.0	0.9399	0.9877 above .90
59432 BUF243J269.0			59432 BUF243J269.0	0.9473	0.9769 above .90
59434 BUF409 269.0			59434 BUF409 269.0	0.9384	0.9733 above .90
59547 BUF243 269.0			59547 BUF243 269.0	0.9471	0.9768 above .90
59572 FGC333 269.0			59572 FGC333 269.0	0.9487	0.9770 above .90
59575 BUF342 269.0			59575 BUF342 269.0	0.9429	0.9777 above .90
59400 MON376J269.0			59400 MON376J269.0	0.9486	0.9830 above .90
59401 MON376 269.0			59401 MON376 269.0	0.9476	0.9821 above .90
59402 MON416J269.0			59402 MON416J269.0	0.9442	0.9788 above .90
59403 MON416 269.0			59403 MON416 269.0	0.9439	0.9785 above .90
59404 PUR390 269.0			59404 PUR390 269.0	0.9262	0.9617 above .90
59432 BUF243J269.0			59432 BUF243J269.0	0.9460	0.9769 above .90
59434 BUF409 269.0			59434 BUF409 269.0	0.9328	0.9733 above .90
59547 BUF243 269.0			59547 BUF243 269.0	0.9459	0.9768 above .90
59572 FGC333 269.0			59572 FGC333 269.0	0.9485	0.9770 above .90
59575 BUF342 269.0			59575 BUF342 269.0	0.9374	0.9777 above .90
59580 REP359 269.0			59580 REP359 269.0	0.9446	0.9647 above .90
59424 RES364 269.0			59424 RES364 269.0	0.8976	0.9787 capacitor 69kv
59552 LAW260 269.0			59552 LAW260 269.0	0.9259	0.9845 above .90
59553 ALB262 269.0			59553 ALB262 269.0	0.9006	0.9814 above .90
59573 HTC338 269.0			59573 HTC338 269.0	0.9109	0.9827 above .90
59577 MTV351 269.0			59577 MTV351 269.0	0.8918	0.9823 capacitor 69kv
59578 AUR355 269.0			59578 AUR355 269.0	0.8830	0.9916 capacitor 69kv
59606 MTV420 269.0			59606 MTV420 269.0	0.8907	0.9829 capacitor 69kv
59546 BIL221 269.0			59546 BIL221 269.0	0.8999	0.9682 capacitor 69kv
59576 REP345 269.0			59576 REP345 269.0	0.9277	0.9731 above .90
59580 REP359 269.0			59580 REP359 269.0	0.9083	0.9647 above .90
59611 MAR437 269.0			59611 MAR437 269.0	0.8894	0.9800 capacitor 69kv
59422 GNB347 269.0			59422 GNB347 269.0	0.9493	0.9731 above .90
59546 BIL221 269.0			59546 BIL221 269.0	0.9245	0.9682 above .90
59576 REP345 269.0			59576 REP345 269.0	0.9100	0.9731 above .90
59580 REP359 269.0			59580 REP359 269.0	0.9102	0.9647 above .90
59524 NEO 56 269.0			59524 NEO 56 269.0	0.9442	0.9941 above .90
59563 LIN314 269.0			59563 LIN314 269.0	0.9427	0.9959 above .90
59640 COL318 134.5			59640 COL318 134.5	0.9434	1.0003 above .90
59546 BIL221 269.0			59546 BIL221 269.0	0.9333	0.9682 above .90
59580 REP359 269.0			59580 REP359 269.0	0.9361	0.9647 above .90
59570 OZK330 269.0			59570 OZK330 269.0	0.9151	1.0129 above .90
59609 OZK434 269.0			59609 OZK434 269.0	0.9186	1.0089 above .90

VOLTAGE REPORT TABLE

OUTAGED BRANCH		VOLTAGE RANGE	(X--- BUS ---X)	V-CONT	V-INIT
59576 [REP345 269.000]	TO BUS 59580 [REP359 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59546 BIL221 269.0	0.9247	0.9682 above .90
59577 [MTV351 269.000]	TO BUS 59606 [MTV420 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59580 REP359 269.0	0.9105	0.9647 above .90
59578 [AUR355 269.000]	TO BUS 59606 [MTV420 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59424 RES364 269.0	0.9493	0.9787 above .90
			59577 MTV351 269.0	0.9492	0.9823 above .90
			59424 RES364 269.0	0.9386	0.9787 above .90
			59553 ALB262 269.0	0.9414	0.9814 above .90
			59573 HTC338 269.0	0.9473	0.9827 above .90
			59577 MTV351 269.0	0.9373	0.9823 above .90
			59606 MTV420 269.0	0.9371	0.9829 above .90
59590 [QUA377 269.000]	TO BUS 59601 [HOC404 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59427 COM381 269.0	0.9475	1.0017 above .90
59635 [FRP217 134.500]	TO BUS 59639 [DUN283 134.500]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59635 FRP217 134.5	1.0545	1.0329 above .90
		VOLTAGE LESS THAN 0.9500:	59640 COL318 134.5	0.9424	1.0003 above .90
59637 [HUM308 134.500]	TO BUS 59639 [DUN283 134.500]	CKT 1 VOLTAGE GREATER THAN 1.0500	59635 FRP217 134.5	1.0548	1.0329 above .90
		VOLTAGE LESS THAN 0.9500:	59639 DUN283 134.5	1.0532	1.0205 above .90
59478 [DAD368 5161.00]	TO BUS 96101 [5MORGAN 161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59640 COL318 134.5	0.9467	1.0003 above .90
		VOLTAGE LESS THAN 0.9500:	59434 BUF409 269.0	0.9492	0.9733 above .90

2001 SPRING PEAK, ST. JOSEPH LIGHT AND POWER - AREA 679

NONE

2001 WINTER PEAK, MISSOURI PUBLIC SERVICE - AREA 540

OUTAGED BRANCH		VOLTAGE RANGE	(X--- BUS ---X)	V-CONT	V-INIT
59286 [GRDWST 269.000]	TO BUS 59287 [MARTCTY269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59287 MARTCTY269.0	1.0542	1.0214 LTC
59307 [NEVPLT 269.000]	TO BUS 59308 [NEVADA 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59306 APCITY 269.0	0.9119	1.0074 Switch
			59307 NEVPLT 269.0	0.8578	1.0160 Switch
			59311 NEVJCT 269.0	0.8567	1.0151 Switch
			59312 LAMAR 269.0	0.8359	0.9981 Switch
59308 [NEVADA 269.000]	TO BUS 59309 [METZ 269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59159 NEVADA#113.2	1.0501	1.0183 LTC
59242 [CLINTON5161.00]	TO BUS 96071 [SCLINTN 161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59308 NEVADA 269.0	1.0501	1.0183 LTC
			59242 CLINTONS 161	0.9270	1.0298 Acceptable
			59301 CLNTPLT269.0	0.9300	1.0199 Acceptable
			59302 CLNTGRN269.0	0.9292	1.0198 Acceptable
			59303 CLINTON269.0	0.9297	1.0221 Acceptable
			59304 URICHTP269.0	0.9445	1.0120 Acceptable
			59305 URICH 269.0	0.9427	1.0104 Acceptable
CONTINGENCY SPP-13					
59207 [ARCHIE 5161.00]	TO BUS 59240 [ADRIAN 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59216 BUTLER_5 161	0.9340	1.0170 Acceptable
59216 [BUTLER_5161.00]	TO BUS 59240 [ADRIAN 5161.00]	CKT 1			
59208 [NEVADA 5161.00]	TO BUS 59216 [BUTLER_5161.00]	CKT 1			

VOLTAGE REPORT TABLE

2001 WINTER PEAK - EMPIRE DISTRICT ELECTRIC - AREA 544

(OUTAGED BRANCH) (VOLTAGE RANGE)

59464 [BOL 73 5161.00] TO BUS 59528 [BOL 73 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:

(X--- BUS ---X)	V-CONT	V-INIT
59425 HER209 269.0	0.8878	0.9804 capacitor 69kv
59432 BUF243J269.0	0.9032	0.9650 above .90
59433 STRKAMO269.0	0.9365	0.9761 above .90
59434 BUF409 269.0	0.8847	0.9562 capacitor 69kv
59528 BOL 73 269.0	0.9088	0.9992 above .90
59529 SED 80 269.0	0.9478	0.9871 above .90
59545 FRP217 269.0	0.9429	0.9918 above .90
59547 BUF243 269.0	0.9030	0.9648 above .90
59567 BRT323 269.0	0.9275	0.9905 above .90
59572 FGC333 269.0	0.9057	0.9656 above .90
59575 BUF342 269.0	0.8939	0.9647 capacitor 69kv
59584 BOL367 269.0	0.9085	0.9851 above .90
59587 STR370 269.0	0.9269	0.9723 above .90
59596 FRG397 269.0	0.9248	0.9724 above .90
59612 BOL602 269.0	0.9121	0.9844 above .90
59637 HUM308 134.5	0.9336	0.9667 above .90
59640 COL318 134.5	0.9172	0.9509 above .90
59637 HUM308 134.5	0.9424	0.9667 above .90
59640 COL318 134.5	0.9261	0.9509 above .90
59404 PUR390 269.0	0.9450	0.9676 above .90
59400 MON376J269.0	0.9360	0.9887 above .90
59401 MON376 269.0	0.9349	0.9877 above .90
59402 MON416J269.0	0.9313	0.9843 above .90
59403 MON416 269.0	0.9310	0.9841 above .90
59404 PUR390 269.0	0.9133	0.9676 above .90
59420 WEL186 134.5	0.9372	0.9640 above .90
59432 BUF243J269.0	0.9096	0.9650 above .90
59434 BUF409 269.0	0.8851	0.9562 capacitor 69kv
59547 BUF243 269.0	0.9095	0.9648 above .90
59572 FGC333 269.0	0.9136	0.9656 above .90
59575 BUF342 269.0	0.8943	0.9647 capacitor 69kv
59587 STR370 269.0	0.9421	0.9723 above .90
59596 FRG397 269.0	0.9406	0.9724 above .90
59545 FRP217 269.0	0.9454	0.9918 above .90
59584 BOL367 269.0	0.9106	0.9851 above .90
59612 BOL602 269.0	0.9143	0.9844 above .90
59637 HUM308 134.5	0.9358	0.9667 above .90
59640 COL318 134.5	0.9197	0.9509 above .90
59432 BUF243J269.0	0.9415	0.9650 above .90
59547 BUF243 269.0	0.9413	0.9648 above .90
59572 FGC333 269.0	0.9407	0.9656 above .90
59587 STR370 269.0	0.9431	0.9723 above .90
59596 FRG397 269.0	0.9415	0.9724 above .90
59421 GNB347J269.0	0.9493	0.9924 above .90
59422 GNB347 269.0	0.9409	0.9841 above .90
59423 DIA242 269.0	0.9488	0.9918 above .90
59524 NEO 56 269.0	0.9463	0.9923 above .90
59563 LIN314 269.0	0.9447	0.9941 above .90
59637 HUM308 134.5	0.9412	0.9667 above .90
59640 COL318 134.5	0.9250	0.9509 above .90

VOLTAGE REPORT TABLE

(	OUTAGED BRANCH	) (	VOLTAGE RANGE	) (X---- BUS ----X)	V-CONT	V-INIT
59545	[FRP217 269.000] TO BUS 59635 [FRP217 134.500]	CKT 1 VOLTAGE LESS THAN 0.9500:		59635 FRP217 134.5	0.8330	1.0176 provide solut.
				59637 HUM308 134.5	0.8353	0.9667 provide solut.
				59639 DUN283 134.5	0.8331	0.9913 provide solut.
				59640 COL318 134.5	0.8169	0.9509 provide solut.
				59641 CAP304 134.5	0.9370	1.0049 above .90
59546	[BIL221 269.000] TO BUS 59580 [REP359 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:		59580 REP359 269.0	0.9463	0.9809 above .90
59568	[STK324 269.000] TO BUS 59616 [STK631J269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:		59568 STK324 269.0	0.8933	0.9952 capacitor 69kv
				59637 HUM308 134.5	0.9181	0.9667 above .90
				59638 STK324 134.5	0.9173	1.0259 above .90
				59640 COL318 134.5	0.9020	0.9509 above .90
				59641 CAP304 134.5	0.9171	1.0049 above .90
59568	[STK324 269.000] TO BUS 59638 [STK324 134.500]	CKT 1 VOLTAGE LESS THAN 0.9500:		59637 HUM308 134.5	0.9187	0.9667 above .90
				59638 STK324 134.5	0.9181	1.0259 above .90
				59640 COL318 134.5	0.9026	0.9509 above .90
				59641 CAP304 134.5	0.9179	1.0049 above .90
59570	[OZK330 269.000] TO BUS 59604 [BHJ415 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:		59570 OZK330 269.0	0.9026	1.0046 above .90
59572	[FGC333 269.000] TO BUS 59596 [FRG397 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:		59609 OZK434 269.0	0.9061	1.0008 above .90
				59432 BUF243J269.0	0.9410	0.9650 above .90
				59547 BUF243 269.0	0.9409	0.9648 above .90
				59572 FGC333 269.0	0.9407	0.9656 above .90
59590	[QUA377 269.000] TO BUS 59601 [HOC404 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:		59427 COM381 269.0	0.9358	1.0024 above .90
				59579 COM381T269.0	0.9408	1.0069 above .90
				59590 QUA377 269.0	0.9392	1.0083 above .90
59605	[STK418 269.000] TO BUS 59614 [SK631CJ269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:		59549 ARC250 269.0	0.9424	0.9907 above .90
				59568 STK324 269.0	0.9352	0.9952 above .90
				59613 GRN614 269.0	0.9497	0.9853 above .90
				59614 SK631CJ269.0	0.9348	0.9959 above .90
				59616 STK631J269.0	0.9353	0.9954 above .90
				59637 HUM308 134.5	0.9358	0.9667 above .90
				59640 COL318 134.5	0.9195	0.9509 above .90
59635	[FRP217 134.500] TO BUS 59639 [DUN283 134.500]	CKT 1 VOLTAGE GREATER THAN 1.0500: VOLTAGE LESS THAN 0.9500:		59635 FRP217 134.5	1.0504	1.0176 above .90
				59637 HUM308 134.5	0.8343	0.9667 provide solut.
				59639 DUN283 134.5	0.8319	0.9913 provide solut.
				59640 COL318 134.5	0.8159	0.9509 provide solut.
				59641 CAP304 134.5	0.9364	1.0049 above .90
59637	[HUM308 134.500] TO BUS 59639 [DUN283 134.500]	CKT 1 VOLTAGE GREATER THAN 1.0500: VOLTAGE LESS THAN 0.9500:		59635 FRP217 134.5	1.0504	1.0176 above .90
				59637 HUM308 134.5	0.8448	0.9667 provide solut.
				59640 COL318 134.5	0.8265	0.9509 provide solut.
				59641 CAP304 134.5	0.9415	1.0049 above .90
59637	[HUM308 134.500] TO BUS 59641 [CAP304 134.500]	CKT 1 VOLTAGE LESS THAN 0.9500:		59637 HUM308 134.5	0.9191	0.9667 above .90
59638	[STK324 134.500] TO BUS 59641 [CAP304 134.500]	CKT 1 VOLTAGE LESS THAN 0.9500:		59640 COL318 134.5	0.9031	0.9509 above .90
				59637 HUM308 134.5	0.9172	0.9667 above .90
				59640 COL318 134.5	0.9011	0.9509 above .90
				59641 CAP304 134.5	0.9157	1.0049 above .90
59497	[RVS438 5161.00] TO BUS 52672 [TABLE R5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:		59473 RDS295 5 161	0.9477	0.9771 above .90
				59474 OZD312 5 161	0.9444	0.9846 above .90
				59475 BRN331 5 161	0.9417	0.9819 above .90
				59482 HOL387 5 161	0.9423	0.9860 above .90
				59488 BRN412 5 161	0.9416	0.9818 above .90
				59489 BRN413 5 161	0.9403	0.9849 above .90
				59492 RDS424 5 161	0.9453	0.9767 above .90
				59495 GRT433 5 161	0.9407	0.9831 above .90
				59497 RVS438 5 161	0.9406	0.9877 above .90

VOLTAGE REPORT TABLE

(OUTAGED BRANCH) (VOLTAGE RANGE)	(X---- BUS ----X)	V-CONT	V-INIT
59605 [STK418 269.000] TO BUS 96118 [5STKAEC 161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59549 ARC250 269.0 59568 STK324 269.0 59605 STK418 269.0 59613 GRN614 269.0 59614 SK631CJ269.0 59616 STK631J269.0 59637 HUM308 134.5 59640 COL318 134.5	0.9425 0.9354 0.9350 0.9498 0.9350 0.9355 0.9360 0.9196	0.9907 above .90 0.9952 above .90 0.9970 above .90 0.9853 above .90 0.9959 above .90 0.9954 above .90 0.9667 above .90 0.9509 above .90

2001 WINTER PEAK, ST. JOSEPH LIGHT AND POWER - AREA 679

NONE

2004 SUMMER PEAK, MISSOURI PUBLIC SERVICE - AREA 540

(OUTAGED BRANCH) (VOLTAGE RANGE)	(X---- BUS ----X)	V-CONT	V-INIT
59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59159 NEVADA#113.2 59208 NEVADA 5 161 59216 BUTLER_5 161 59240 ADRIAN 5 161 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59310 3M 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0 59208 NEVADA 5 161 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59309 METZ 269.0 59310 3M 269.0 59312 LAMAR 269.0 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59310 3M 269.0 59312 LAMAR 269.0 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59310 3M 269.0 59312 LAMAR 269.0 59277 WARSAW 269.0	0.9346 0.8984 0.8921 0.8905 0.8812 0.8792 0.8998 0.8887 0.9320 0.9346 0.9091 0.9017 0.9300 0.8970 0.9203 0.9068 0.9049 0.9250 0.9142 0.9341 0.9269 0.9220 0.9243 0.9224 0.9421 0.9315 0.9439 0.9389 0.9349 0.9330 0.9420 0.9492 0.9359	1.0152 Generation 0.9695 Generation 0.9887 Generation 0.9987 Generation 0.9664 Generation 0.9646 Generation 0.9834 Generation 0.9733 Generation 1.0115 Generation 1.0152 Generation 0.9919 Generation 0.9851 Generation 1.0098 Generation 0.9796 Generation 0.9695 Acceptable 0.9664 Acceptable 0.9646 Acceptable 0.9834 Acceptable 0.9733 Acceptable 0.9919 Acceptable 0.9851 Acceptable 0.9796 Acceptable 0.9664 Acceptable 0.9646 Acceptable 0.9834 Acceptable 0.9733 Acceptable 0.9851 Acceptable 0.9796 Acceptable 0.9664 Acceptable
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:			
59208 [NEVADA 5161.00] TO BUS 59308 [NEVADA 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:			
59208 [NEVADA 5161.00] TO BUS 59308 [NEVADA 269.000] CKT 2 VOLTAGE LESS THAN 0.9500:			
59209 [SEDALIA5161.00] TO BUS 59271 [SEDN 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:			

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X--- BUS ---X)	V-CONT	V-INIT
59216 [BUTLER_5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:		59159 NEVADA#113.2 59208 NEVADA 5 161 59216 BUTLER_5 161 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59310 3M 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.9464 0.9089 0.9061 0.8937 0.8917 0.9121 0.9011 0.9436 0.9464 0.9212 0.9140 0.9417 0.9091	1.0152 Generation 0.9695 Generation 0.9887 Generation 0.9664 Generation 0.9646 Generation 0.9834 Generation 0.9733 Generation 1.0115 Generation 1.0152 Generation 0.9919 Generation 0.9851 Generation 1.0098 Generation 0.9796 Generation
59239 [HSNVL 5161.00] TO BUS 59295 [HSNVL 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59295 HSNVL 269.0 59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.9339 0.9330 0.9331 0.9334 0.9348 0.9360 0.9395 0.9331 0.9331	0.9893 Acceptable 1.0035 Acceptable 1.0046 Acceptable 1.0073 Acceptable 1.0119 Acceptable 1.0082 Acceptable 1.0040 Acceptable 1.0055 Acceptable 1.0055 Acceptable
59280 [PHILL 269.000] TO BUS 59290 [BELTONS269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59288 RGAFB 269.0 59289 BELTON 269.0 59290 BELTONS269.0	0.9361 0.9292 0.9191	0.9863 Upgrade 0.9831 Upgrade 0.9792 Upgrade
59284 [GRDVWTP269.000] TO BUS 59288 [RGAFB 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59288 RGAFB 269.0 59289 BELTON 269.0 59290 BELTONS269.0	0.9304 0.9310 0.9333	0.9863 Acceptable 0.9831 Acceptable 0.9792 Acceptable
59285 [GRDWCTY269.000] TO BUS 59286 [GRDWST 269.000] CKT 1 VOLTAGE GREATER THAN 1.0500:		59286 GRDWST 269.0 59287 MARTCTY269.0	1.0559 1.0591	1.0069 LTC 1.0141 LTC
59286 [GRDWST 269.000] TO BUS 59287 [MARTCTY269.000] CKT 1 VOLTAGE GREATER THAN 1.0500:		59287 MARTCTY269.0	1.0808	1.0141 LTC
59288 [RGAFB 269.000] TO BUS 59289 [BELTON 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59289 BELTON 269.0	0.9410	0.9831 Acceptable
59292 [ANCONDA269.000] TO BUS 59293 [HSNVLW 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59290 BELTONS269.0	0.9421	0.9792 Acceptable
59293 [HSNVLW 269.000] TO BUS 59294 [HSNVLS 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59292 ANCONDA269.0 59291 FREEMAN269.0 59292 ANCONDA269.0	0.9430 0.9400 0.9400	0.9893 Acceptable 1.0035 Acceptable 0.9831 Acceptable
59294 [HSNVLS 269.000] TO BUS 59295 [HSNVL 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59293 HSNVLW 269.0 59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0	0.9398 0.9280 0.9199 0.9194 0.9186	1.0046 Acceptable 0.9893 Acceptable 1.0035 Acceptable 1.0046 Acceptable 1.0073 Acceptable
59307 [NEVPLT 269.000] TO BUS 59308 [NEVADA 269.000] CKT 1 VOLTAGE GREATER THAN 1.0500:		59159 NEVADA#113.2 59308 NEVADA 269.0	1.0550 1.0550	1.0152 Switch 1.0152 Switch
	VOLTAGE LESS THAN 0.9500:	59304 URICHTP269.0 59305 URICH 269.0 59306 APCITY 269.0 59307 NEVPLT 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.9233 0.9203 0.8723 0.7770 0.7745 0.7336	1.0087 Switch 1.0059 Switch 1.0044 Switch 1.0115 Switch 1.0098 Switch 0.9796 Switch
59308 [NEVADA 269.000] TO BUS 59309 [METZ 269.000] CKT 1 VOLTAGE GREATER THAN 1.0500:		59159 NEVADA#113.2 59307 NEVPLT 269.0 59308 NEVADA 269.0 59311 NEVJCT 269.0	1.0826 1.0777 1.0826 1.0761	1.0152 LTC 1.0115 LTC 1.0152 LTC 1.0098 LTC

VOLTAGE REPORT TABLE

OUTAGED BRANCH		VOLTAGE RANGE	(X--- BUS ---X)	V-CONT	V-INIT
59309 [METZ 269.000] TO BUS 59310 [3M	269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59159 NEVADA#113.2 59258 WALKER 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59311 NEVJCT 269.0 59242 CLINTONS 161 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEBDRCK 269.0 59300 POSTOAK269.0 59301 CLNTPLT269.0 59302 CLNTGRN269.0 59303 CLINTON269.0 59304 URICHTP269.0 59305 URICH 269.0 59306 APCITY 269.0 59309 METZ 269.0 59310 3M 269.0 59312 LAMAR 269.0	1.0682 1.0548 1.0636 1.0682 1.0626 1.0619 0.8158 0.9163 0.9144 0.9343 0.9236 0.8950 0.8392 0.8375 0.8386 0.8591 0.8559 0.8821 0.9433 0.9362 0.9263	1.0152 LTC 0.9834 LTC 1.0115 LTC 1.0152 LTC 0.9919 LTC 1.0098 LTC 1.0197 Accept Risk 0.9664 Accept Risk 0.9646 Accept Risk 0.9834 Accept Risk 0.9733 Accept Risk 1.0125 Accept Risk 1.0167 Accept Risk 1.0167 Accept Risk 1.0208 Accept Risk 1.0087 Accept Risk 1.0059 Accept Risk 1.0044 Accept Risk 0.9919 Accept Risk 0.9851 Accept Risk 0.9796 Accept Risk
59242 [CLINTON5161.00] TO BUS 96071 [5CLINTN 161.00]	269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:			
59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00]	269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59159 NEVADA#113.2	0.9460	1.0152 Generation
59216 [BUTLER_5161.00] TO BUS 59240 [ADRIAN 5161.00]	269.000]	CKT 1	59208 NEVADA 5 161	0.9091	0.9695 Generation
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5161.00]	269.000]	CKT 1	59216 BUTLER_5 161	0.8829	0.9887 Generation
CONTINGENCY SPP-12			59256 KAMOTP 269.0	0.8931	0.9664 Generation
59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00]	269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59257 ELDRDO 269.0	0.8911	0.9646 Generation
59216 [BUTLER_5161.00] TO BUS 59240 [ADRIAN 5161.00]	269.000]	CKT 1	59258 WALKER 269.0	0.9115	0.9834 Generation
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5161.00]	269.000]	CKT 1	59259 DEBDRCK 269.0	0.9005	0.9733 Generation
			59307 NEVPLT 269.0	0.9432	1.0115 Generation
			59308 NEVADA 269.0	0.9460	1.0152 Generation
			59309 METZ 269.0	0.9208	0.9919 Generation
			59310 3M 269.0	0.9134	0.9851 Generation
			59311 NEVJCT 269.0	0.9413	1.0098 Generation
			59312 LAMAR 269.0	0.9086	0.9796 Generation

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OUTAGED BRANCH		VOLTAGE RANGE	(X--- BUS ---X)	V-CONT	V-INIT
BASE CASE		VOLTAGE LESS THAN 0.9500:			
			59404 PUR390 269.0	0.9497	0.9497 above .90
			59416 CHE299T134.5	0.9192	0.9192 above .90
			59417 CHE299 134.5	0.9156	0.9156 above .90
			59418 CHE300 134.5	0.9186	0.9186 above .90
			59419 TWN388 134.5	0.9176	0.9176 above .90
			59420 WEL186 134.5	0.8936	0.8936 provide solut.
			59640 COL318 134.5	0.9496	0.9496 above .90
			59433 STRKAMO269.0	0.9462	0.9679 above .90
59433 [STRKAMO269.000] TO BUS 59604 [BHJ415 269.000]	269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59436 CUPTAP 269.0	0.9442	0.9997 above .90
59436 [CUPTAP 269.000] TO BUS 59585 [DAD368 269.000]	269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59437 CUPSUB 269.0	0.9436	0.9992 above .90
			59598 LKW400 269.0	0.9482	0.9727 above .90
			59613 GRN614 269.0	0.9490	0.9765 above .90

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59464 [BOL 73 5161.00] TO BUS 59528 [BOL 73 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:				
	59425 HER209 269.0	0.8790	0.9808 capacitor 69kv	
	59432 BUF243J269.0	0.8968	0.9639 capacitor 69kv	
	59433 STRKAMO269.0	0.9248	0.9679 above .90	
	59434 BUF409 269.0	0.8804	0.9581 capacitor 69kv	
	59528 BOL 73 269.0	0.9035	1.0023 above .90	
	59529 SED 80 269.0	0.9347	0.9775 above .90	
	59545 FRP217 269.0	0.9377	0.9910 above .90	
	59547 BUF243 269.0	0.8966	0.9637 capacitor 69kv	
	59567 BRT323 269.0	0.9180	0.9867 above ..90	
	59572 PGC333 269.0	0.8991	0.9640 capacitor 69kv	
	59575 BUF342 269.0	0.8887	0.9657 capacitor 69kv	
	59584 BOL367 269.0	0.9059	0.9895 above .90	
	59586 WIL445 269.0	0.9416	0.9743 above .90	
	59587 STR370 269.0	0.9160	0.9654 above .90	
	59596 PRG397 269.0	0.9146	0.9663 above .90	
	59612 BOL602 269.0	0.9089	0.9878 above .90	
	59637 HUM308 134.5	0.9325	0.9684 above .90	
	59639 DUN283 134.5	0.9473	0.9910 above .90	
	59640 COL318 134.5	0.9129	0.9496 above .90	
	59691 WIL369 269.0	0.9393	0.9721 above .90	
	59436 CUPTAP 269.0	0.9492	0.9997 above .90	
	59437 CUPSUB 269.0	0.9487	0.9992 above .90	
	59536 ASH121 269.0	0.9491	0.9792 above .90	
	59637 HUM308 134.5	0.9427	0.9684 above .90	
	59640 COL318 134.5	0.9236	0.9496 above .90	
	59691 WIL369 269.0	0.9478	0.9721 above .90	
	59400 MON376J269.0	0.9460	0.9794 above .90	
	59401 MON376 269.0	0.9447	0.9781 above .90	
	59402 MON416J269.0	0.9400	0.9736 above .90	
	59403 MON416 269.0	0.9397	0.9733 above .90	
	59404 PUR390 269.0	0.9153	0.9497 above .90	
	59468 AUR124 5 161	0.9427	0.9673 above .90	
	59480 MON383 5 161	0.9311	0.9646 above .90	
	59400 MON376J269.0	0.9182	0.9794 above .90	
	59401 MON376 269.0	0.9169	0.9781 above .90	
	59402 MON416J269.0	0.9120	0.9736 above .90	
	59403 MON416 269.0	0.9116	0.9733 above .90	
	59404 PUR390 269.0	0.8864	0.9497 capacitor 69kv	
	59405 MON352J269.0	0.9415	1.0009 above .90	
	59406 MON352 269.0	0.9413	1.0008 above .90	
	59407 MON311J269.0	0.9401	0.9997 above .90	
	59408 MON311 269.0	0.9400	0.9996 above .90	
	59430 SAR362 269.0	0.9462	0.9810 above .90	
	59540 MON152 269.0	0.9465	1.0013 above .90	
	59544 WEN205 269.0	0.9497	0.9899 above .90	
	59591 MON383 269.0	0.9458	1.0051 above .90	

VOLTAGE REPORT TABLE

OUTAGED BRANCH

) (VOLTAGE RANGE) (

(X---- BUS ----X)

V-CONT

V-INIT

59487 [HOC404 5161.00] TO BUS 59601 [HOC404 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59409 SCAM66 269.0	0.9465	0.9790 above .90
	59410 COL282T269.0	0.9475	0.9800 above .90
	59411 COL282 269.0	0.9412	0.9739 above .90
	59412 SEK225T269.0	0.9456	0.9782 above .90
	59413 SEK225 269.0	0.9454	0.9781 above .90
	59414 SMN425 269.0	0.9442	0.9768 above .90
	59415 SHR444 269.0	0.9444	0.9770 above .90
	59416 CHE299T134.5	0.8719	0.9192 provide solut.
	59417 CHE299 134.5	0.8682	0.9156 provide solut.
	59418 CHE300 134.5	0.8713	0.9186 provide solut.
	59419 TWN388 134.5	0.8703	0.9176 provide solut.
	59420 WEL186 134.5	0.8450	0.8936 provide solut.
	59427 COM381 269.0	0.9435	0.9870 above .90
	59473 RDS295 5 161	0.9378	0.9602 above .90
	59492 RDS424 5 161	0.9353	0.9596 above .90
59488 [BRN412 5161.00] TO BUS 59492 [RDS424 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59524 NEO 56 269.0	0.9468	0.9790 above .90
59524 [NEO 56 269.000] TO BUS 59563 [LIN314 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59432 BUF243J269.0	0.9071	0.9639 above .90
59528 [BOL 73 269.000] TO BUS 59575 [BUF342 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59433 STRKAMO269.0	0.9413	0.9679 above .90
	59434 BUF409 269.0	0.8848	0.9581 capacitor 69kv
	59547 BUF243 269.0	0.9070	0.9637 above .90
	59572 FGC333 269.0	0.9108	0.9640 above .90
	59575 BUF342 269.0	0.8931	0.9657 capacitor 69kv
	59587 STR370 269.0	0.9344	0.9654 above .90
	59596 FRG397 269.0	0.9336	0.9663 above .90
59528 [BOL 73 269.000] TO BUS 59584 [BOL367 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59545 FRP217 269.0	0.9497	0.9910 above .90
	59584 BOL367 269.0	0.9231	0.9895 above .90
	59612 BOL602 269.0	0.9253	0.9878 above .90
	59637 HUM308 134.5	0.9412	0.9684 above .90
	59640 COL318 134.5	0.9221	0.9496 above .90
	59587 STR370 269.0	0.9429	0.9654 above .90
59529 [SED 80 269.000] TO BUS 59596 [FRG397 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59596 FRG397 269.0	0.9425	0.9663 above .90
59532 [CAR108 269.000] TO BUS 59533 [ATL109 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59532 CAR108 269.0	0.9493	0.9782 above .90
	59599 JAS403 269.0	0.9486	0.9728 above .90
	59600 JAS403T269.0	0.9492	0.9734 above .90
59536 [ASH121 269.000] TO BUS 59585 [DAD368 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59536 ASH121 269.0	0.9488	0.9792 above .90
	59691 WIL369 269.0	0.9484	0.9721 above .90
59537 [AUR124 269.000] TO BUS 59578 [AUR355 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59424 RES364 269.0	0.9474	0.9710 above .90
	59577 MTV351 269.0	0.9381	0.9718 above .90
	59578 AUR355 269.0	0.9277	0.9806 above .90
	59606 MTV420 269.0	0.9369	0.9723 above .90
59538 [DIA131 269.000] TO BUS 59595 [RNM393 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59421 GNB347J269.0	0.9328	0.9818 above .90
	59422 GNB347 269.0	0.9217	0.9709 above .90
	59423 DIA242 269.0	0.9322	0.9812 above .90
	59430 SAR362 269.0	0.9487	0.9810 above .90
	59538 DIA131 269.0	0.9377	0.9865 above .90
	59416 CHE299T134.5	0.8982	0.9192 provide solut.
	59417 CHE299 134.5	0.8946	0.9156 provide solut.
	59418 CHE300 134.5	0.8976	0.9186 provide solut.
	59419 TWN388 134.5	0.8967	0.9176 provide solut.
	59420 WEL186 134.5	0.8721	0.8936 provide solut.
59543 [NBO184 269.000] TO BUS 59560 [ROC296 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59560 ROC296 269.0	0.9494	0.9790 above .90

VOLTAGE REPORT TABLE

VOLTAGE REPORT TABLE

OUTAGED BRANCH

	(VOLTAGE RANGE)	(X---- BUS ----X)	V-CONT	V-INIT
59484 [DEC392 5161.00] TO BUS 53139 [FLINTCR5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59428 SWC414 269.0 59569 DEC326 269.0 59594 DEC392 269.0 59617 GRA700 269.0	0.9483 0.9484 0.9498 0.9477	0.9843 above .90 1.0015 above .90 1.0041 above .90 0.9963 above .90	
59497 [RVS438 5161.00] TO BUS 52672 [TABLE R5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59473 RDS295 5 161 59474 OZD312 5 161 59475 BRN331 5 161 59482 HOL387 5 161 59488 BRN412 5 161 59489 BRN413 5 161 59492 RDS424 5 161 59495 GRT433 5 161 59497 RVS438 5 161 59648 OZD312 14.60 59641 CAP304 134.5 59548 BOS249 269.0 59549 ARC250 269.0 59550 GLD251 269.0 59568 STK324 269.0 59598 LKW400 269.0 59605 STK418 269.0 59613 GRN614 269.0 59614 SK631CJ269.0 59616 STK631J269.0 59637 HUM308 134.5 59640 COL318 134.5 59641 CAP304 134.5	0.9267 0.9226 0.9203 0.9207 0.9202 0.9190 0.9237 0.9194 0.9193 0.9462 0.9356 0.9490 0.9286 0.9409 0.9211 0.9364 0.9205 0.9365 0.9205 0.9211 0.9388 0.9198 0.9482	0.9602 above .90 0.9687 above .90 0.9664 above .90 0.9710 above .90 0.9663 above .90 0.9704 above .90 0.9596 above .90 0.9681 above .90 0.9736 above .90 0.9915 above .90 1.0010 above .90 0.9719 above .90 0.9809 above .90 0.9708 above .90 0.9848 above .90 0.9727 above .90 0.9864 above .90 0.9765 above .90 0.9853 above .90 0.9849 above .90 0.9684 above .90 0.9496 above .90 1.0010 above .90	
59605 [STK418 269.000] TO BUS 96118 [5STKAEC 161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59641 CAP304 134.5 59548 BOS249 269.0 59549 ARC250 269.0 59550 GLD251 269.0 59568 STK324 269.0 59598 LKW400 269.0 59605 STK418 269.0 59613 GRN614 269.0 59614 SK631CJ269.0 59616 STK631J269.0 59637 HUM308 134.5 59640 COL318 134.5 59641 CAP304 134.5	0.9490 0.9286 0.9409 0.9211 0.9364 0.9205 0.9365 0.9205 0.9211 0.9388 0.9198 0.9482	0.9719 above .90 0.9809 above .90 0.9708 above .90 0.9848 above .90 0.9727 above .90 0.9864 above .90 0.9765 above .90 0.9853 above .90 0.9849 above .90 0.9684 above .90 0.9496 above .90 1.0010 above .90	

CONTINGENCY SPP-12

59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59637 HUM308 134.5	0.9471	0.9684 above .90
59216 [BUTLER_5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1	59640 COL318 134.5	0.9278	0.9496 above .90
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5161.00] CKT 1			

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NONE

69703 [ST JOE 5161.00] TO BUS 69708 [WOODBIN5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	69704 EAST 5 161 69708 WOODBINS 161	0.9494 0.9492	0.9989 Acceptable 1.0029 Acceptable
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59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59256 KAMOTP 269.0 59257 ELDRDO 269.0	0.9499 0.9487	0.9943 Acceptable 0.9931 Acceptable
59212 [KCI 5161.00] TO BUS 59213 [FRLVW 5161.00] CKT 1 VOLTAGE GREATER THAN 1.0500:	59213 FRLVW 5 161	1.0654	1.0365 Cap Bank Off
59212 [KCI 5161.00] TO BUS 59221 [PLTCTY 5161.00] CKT 1 VOLTAGE GREATER THAN 1.0500:	59212 KCI 5 161	1.0624	1.0329 Cap Bank Off
59286 [GRDWST 269.000] TO BUS 59287 [MARTCTY269.000] CKT 1 VOLTAGE GREATER THAN 1.0500:	59213 FRLVW 5 161	1.0629	1.0365 Cap Bank Off
59307 [NEVPLT 269.000] TO BUS 59308 [NEVADA 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59287 MARTCTY269.0 59306 APCITY 269.0	1.0621 0.9477	1.0194 LTC 1.0142 Switch
59308 [NEVADA 269.000] TO BUS 59309 [METZ 269.000] CKT 1 VOLTAGE GREATER THAN 1.0500:	59307 NEVPLT 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0 59159 NEVADA#113.2 59307 NEVPLT 269.0 59308 NEVADA 269.0 59311 NEVJCT 269.0	0.8999 0.8987 0.8770 1.0574 1.0543 1.0574 1.0533	1.0222 Switch 1.0212 Switch 1.0025 Switch 1.0246 LTC 1.0222 LTC 1.0246 LTC 1.0212 LTC

VOLTAGE REPORT TABLE

OUTAGED BRANCH		VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59309 [METZ 269.000] TO BUS 59310 [3M	269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59159 NEVADA#113.2	1.0502	1.0246 LTC
59308 NEVADA	269.0		59308 NEVADA 269.0	1.0502	1.0246 LTC
59242 CLINTON5	161		59242 CLINTON5 161	0.9238	1.0287 Acceptable
59301 CLNTPLT	269.0		59301 CLNTPLT269.0	0.9268	1.0170 Acceptable
59302 CLNTGRN	269.0		59302 CLNTGRN269.0	0.9258	1.0169 Acceptable
59303 CLINTON	269.0		59303 CLINTON269.0	0.9265	1.0194 Acceptable
59304 URICHTP	269.0		59304 URICHTP269.0	0.9401	1.0147 Acceptable
59305 URICH	269.0		59305 URICH 269.0	0.9382	1.0130 Acceptable

CONTINGENCY SPP-12

59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59216 BUTLER_5 161	0.9239	1.0122 Acceptable
59216 [BUTLER_5 161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1			
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5 161.00] CKT 1			

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OUTAGED BRANCH BASE CASE		VOLTAGE RANGE VOLTAGE LESS THAN 0.9500:	(X---- BUS ----X)	V-CONT	V-INIT
59464 [BOL 73 5161.00] TO BUS 59528 [BOL 73 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59420 WEL186 134.5	0.9458	0.9458 above .90	
59640 COL318	134.5		59640 COL318 134.5	0.9498	0.9498 above .90
59425 HER209	269.0		59425 HER209 269.0	0.8771	0.9958 capacitor 69kv
59432 BUF243J	269.0		59432 BUF243J269.0	0.8952	0.9755 capacitor 69kv
59433 STRKAMO	269.0		59433 STRKAMO269.0	0.9308	0.9826 above .90
59434 BUF409	269.0		59434 BUF409 269.0	0.8758	0.9683 capacitor 69kv
59528 BOL 73	269.0		59528 BOL 73 269.0	0.8988	1.0145 capacitor 69kv
59529 SKD 80	269.0		59529 SKD 80 269.0	0.9423	0.9936 above .90
59545 PRP217	269.0		59545 PRP217 269.0	0.9346	0.9980 above .90
59547 BUF243	269.0		59547 BUF243 269.0	0.8950	0.9754 capacitor 69kv
59567 BRT323	269.0		59567 BRT323 269.0	0.9195	1.0007 above .90
59572 FGC333	269.0		59572 FGC333 269.0	0.8979	0.9760 capacitor 69kv
59575 BUF342	269.0		59575 BUF342 269.0	0.8851	0.9767 capacitor 69kv
59584 BOL367	269.0		59584 BOL367 269.0	0.8971	0.9957 capacitor 69kv
59587 STR370	269.0		59587 STR370 269.0	0.9205	0.9798 above .90
59596 FRG397	269.0		59596 FRG397 269.0	0.9181	0.9803 above .90
59612 BOL602	269.0		59612 BOL602 269.0	0.9008	0.9940 above .90
59637 HUM308	134.5		59637 HUM308 134.5	0.9235	0.9663 above .90
59639 DUN283	134.5		59639 DUN283 134.5	0.9413	0.9928 above .90
59640 COL318	134.5		59640 COL318 134.5	0.9061	0.9498 above .90
59637 HUM308	134.5		59637 HUM308 134.5	0.9426	0.9663 above .90
59640 COL318	134.5		59640 COL318 134.5	0.9256	0.9498 above .90
59404 PUR390	269.0		59404 PUR390 269.0	0.9434	0.9688 above .90
59400 MON376J	269.0		59400 MON376J269.0	0.9300	0.9907 above .90
59401 MON376	269.0		59401 MON376 269.0	0.9288	0.9896 above .90
59402 MON416J	269.0		59402 MON416J269.0	0.9251	0.9861 above .90
59403 MON416	269.0		59403 MON416 269.0	0.9248	0.9859 above .90
59404 PUR390	269.0		59404 PUR390 269.0	0.9065	0.9688 above .90
59407 MON311J	269.0		59407 MON311J269.0	0.9494	1.0087 above .90
59408 MON311	269.0		59408 MON311 269.0	0.9493	1.0086 above .90
59416 CHE299T	134.5		59416 CHE299T134.5	0.9378	0.9628 above .90
59417 CHE299	134.5		59417 CHE299 134.5	0.9355	0.9605 above .90
59418 CHE300	134.5		59418 CHE300 134.5	0.9375	0.9625 above .90
59419 TWN388	134.5		59419 TWN388 134.5	0.9369	0.9619 above .90
59420 WEL186	134.5		59420 WEL186 134.5	0.9205	0.9458 above .90

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X--- BUS ---X)	V-CONT	V-INIT
59528 [BOL 73 269.000] TO BUS 59575 [BUF342 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:				
	59432 BUF243J269.0	0.9139	0.9755 above .90	
	59434 BUF409 269.0	0.8893	0.9683 capacitor 69kv	
	59547 BUF243 269.0	0.9137	0.9754 above .90	
	59572 FGC333 269.0	0.9178	0.9760 above .90	
	59575 BUF342 269.0	0.8985	0.9767 capacitor 69kv	
	59587 STR370 269.0	0.9461	0.9798 above .90	
	59596 FRG397 269.0	0.9448	0.9803 above .90	
	59545 FRP217 269.0	0.9349	0.9980 above .90	
	59584 BOL367 269.0	0.8941	0.9957 capacitor 69kv	
	59612 BOL602 269.0	0.8984	0.9940 capacitor 69kv	
	59637 HUM308 134.5	0.9241	0.9663 above .90	
	59639 DUN283 134.5	0.9422	0.9928 above .90	
	59640 COL318 134.5	0.9067	0.9498 above .90	
	59421 GNB347J269.0	0.9470	0.9908 above .90	
	59422 GNB347 269.0	0.9377	0.9816 above .90	
	59423 DIA242 269.0	0.9464	0.9903 above .90	
	59524 NEO 56 269.0	0.9328	0.9871 above .90	
	59563 LIN314 269.0	0.9311	0.9896 above .90	
	59637 HUM308 134.5	0.9440	0.9663 above .90	
	59640 COL318 134.5	0.9270	0.9498 above .90	
	59635 FRP217 134.5	0.8191	1.0210 provide solut.	
	59637 HUM308 134.5	0.8212	0.9663 provide solut.	
	59639 DUN283 134.5	0.8190	0.9928 provide solut.	
	59640 COL318 134.5	0.8014	0.9498 provide solut.	
	59641 CAP304 134.5	0.9297	1.0053 above .90	
	59580 REP359 269.0	0.9469	0.9829 above .90	
	59568 STK324 269.0	0.8948	0.9946 capacitor 69kv	
	59637 HUM308 134.5	0.9195	0.9663 above .90	
	59638 STK324 134.5	0.9188	1.0267 above .90	
	59640 COL318 134.5	0.9027	0.9498 above .90	
	59641 CAP304 134.5	0.9187	1.0053 above .90	
	59637 HUM308 134.5	0.9202	0.9663 above .90	
	59638 STK324 134.5	0.9197	1.0267 above .90	
	59640 COL318 134.5	0.9034	0.9498 above .90	
	59641 CAP304 134.5	0.9195	1.0053 above .90	
	59570 OZK330 269.0	0.8940	1.0072 provide solut.	
	59609 OZK434 269.0	0.8979	1.0031 provide solut.	
	59427 COM381 269.0	0.9329	0.9949 above .90	
	59579 COM381T269.0	0.9379	0.9996 above .90	
	59590 QUA377 269.0	0.9361	1.0006 above .90	
	59549 ARC250 269.0	0.9295	0.9888 above .90	
	59550 GLD251 269.0	0.9452	0.9781 above .90	
	59568 STK324 269.0	0.9214	0.9946 above .90	
	59598 LKW400 269.0	0.9395	0.9795 above .90	
	59613 GRN614 269.0	0.9380	0.9820 above .90	
	59614 SK631CJ269.0	0.9209	0.9954 above .90	
	59616 STK631J269.0	0.9215	0.9948 above .90	
	59637 HUM308 134.5	0.9298	0.9663 above .90	
	59640 COL318 134.5	0.9128	0.9498 above .90	
	59641 CAP304 134.5	0.9457	1.0053 above .90	

VOLTAGE REPORT TABLE

OUTAGED BRANCH		VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59635 [FRP217 134.500]	TO BUS 59639 [DUN283 134.500]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59635 FRP217 134.5	1.0576	1.0210 above .90
		VOLTAGE LESS THAN 0.9500:	59637 HUM308 134.5	0.8206	0.9663 provide solut.
			59639 DUN283 134.5	0.8181	0.9928 provide solut.
			59640 COL318 134.5	0.8010	0.9498 provide solut.
			59641 CAP304 134.5	0.9293	1.0053 above .90
59637 [HUM308 134.500]	TO BUS 59639 [DUN283 134.500]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59635 FRP217 134.5	1.0576	1.0210 above .90
		VOLTAGE LESS THAN 0.9500:	59639 DUN283 134.5	1.0559	0.9928 above .90
			59637 HUM308 134.5	0.8317	0.9663 provide solut.
			59640 COL318 134.5	0.8122	0.9498 provide solut.
			59641 CAP304 134.5	0.9348	1.0053 above .90
59637 [HUM308 134.500]	TO BUS 59641 [CAP304 134.500]	CKT 1 VOLTAGE LESS THAN 0.9500:	59637 HUM308 134.5	0.9157	0.9663 above .90
59638 [STK324 134.500]	TO BUS 59641 [CAP304 134.500]	CKT 1 VOLTAGE LESS THAN 0.9500:	59640 COL318 134.5	0.8985	0.9498 provide solut.
59497 [RV8438 5161.00]	TO BUS 52672 [TABLE R5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59637 HUM308 134.5	0.9128	0.9663 above .90
			59640 COL318 134.5	0.8956	0.9498 provide solut.
			59641 CAP304 134.5	0.9106	1.0053 above .90
			59473 RDS295 5 161	0.9439	0.9754 above .90
			59474 OZD312 5 161	0.9381	0.9812 above .90
			59475 BRN331 5 161	0.9359	0.9790 above .90
			59482 HOL387 5 161	0.9360	0.9828 above .90
			59488 BRN412 5 161	0.9359	0.9790 above .90
			59489 BRN413 5 161	0.9342	0.9820 above .90
			59492 RDS424 5 161	0.9411	0.9748 above .90
			59495 GRT433 5 161	0.9348	0.9802 above .90
			59497 RV8438 5 161	0.9345	0.9848 above .90
59605 [STK418 269.000]	TO BUS 96118 [5STKAEC 161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59549 ARC250 269.0	0.9296	0.9888 above .90
			59550 GLD251 269.0	0.9453	0.9781 above .90
			59568 STK324 269.0	0.9216	0.9946 above .90
			59598 LKW400 269.0	0.9395	0.9795 above .90
			59605 STK418 269.0	0.9210	0.9967 above .90
			59613 GRN614 269.0	0.9381	0.9820 above .90
			59614 SK631CJ269.0	0.9210	0.9954 above .90
			59616 STK631J269.0	0.9217	0.9948 above .90
			59637 HUM308 134.5	0.9299	0.9663 above .90
			59640 COL318 134.5	0.9130	0.9498 above .90
			59641 CAP304 134.5	0.9459	1.0053 above .90
2004 WINTER PEAK - ST. JOSEPH LIGHT AND POWER - AREA 679				NONE	

2006 SUMMER PEAK -MISSOURI PUBLIC SERVICE - AREA 540

OUTAGED BRANCH		VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59207 [ARCHIE 5161.00]	TO BUS 59240 [ADRIAN 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59159 NEVADA#113.2	0.9241	1.0176 Generation
			59208 NEVADA 5 161	0.8805	0.9604 Generation
			59216 BUTLER_5 161	0.8721	0.9796 Generation
			59240 ADRIAN 5 161	0.8704	0.9906 Generation
			59256 KAMOTP 269.0	0.8658	0.9656 Generation
			59257 ELDORO 269.0	0.8636	0.9636 Generation
			59258 WALKER 269.0	0.8862	0.9837 Generation
			59259 DEDRCK 269.0	0.8740	0.9729 Generation
			59306 APCITY 269.0	0.9448	1.0039 Generation
			59307 NRVPLT 269.0	0.9212	1.0136 Generation
			59308 NEVADA 269.0	0.9241	1.0176 Generation
			59309 METZ 269.0	0.8964	0.9928 Generation
			59310 3M 269.0	0.8883	0.9856 Generation
			59311 NEVJCT 269.0	0.9191	1.0117 Generation
			59312 LAMAR 269.0	0.8831	0.9795 Generation

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X--- BUS ---X)	V-CONT	V-INIT
59208 {NEVADA 5161.00} TO BUS 59216 [BUTLER_5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:		59208 NEVADA 5 161 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59309 METZ 269.0 59310 3M 269.0 59312 LAMAR 269.0 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59309 METZ 269.0 59310 3M 269.0 59312 LAMAR 269.0 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59310 3M 269.0 59312 LAMAR 269.0 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59310 3M 269.0 59312 LAMAR 269.0 59276 COLECMP269.0 59277 WARSAW 269.0 59277 WARSAW 269.0 59284 GRDVWTP269.0 59285 GRDWCTY269.0 59286 GRDWST 269.0 59287 MARTCTY269.0 59288 RGAFB 269.0 59289 BELTON 269.0 59290 BELTONS269.0 59159 NEVADA#113.2 59208 NEVADA 5 161 59216 BUTLER_5 161 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59310 3M 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.9098 0.9022 0.9001 0.9217 0.9100 0.9314 0.9237 0.9182 0.9123 0.9102 0.9314 0.9200 0.9410 0.9334 0.9279 0.9254 0.9234 0.9443 0.9330 0.9463 0.9406 0.9469 0.9301 0.9413 0.9490 0.9474 0.9435 0.9435 0.9406 0.9398 0.9390 0.9399 0.8936 0.8888 0.8832 0.8810 0.9029 0.8911 0.9369 0.9399 0.9129 0.9050 0.9348 0.8997	0.9604 Acceptable 0.9656 Acceptable 0.9636 Acceptable 0.9837 Acceptable 0.9729 Acceptable 0.9928 Acceptable 0.9856 Acceptable 0.9795 Acceptable 0.9656 Acceptable 0.9636 Acceptable 0.9837 Acceptable 0.9729 Acceptable 0.9928 Acceptable 0.9856 Acceptable 0.9795 Acceptable 0.9656 Acceptable 0.9636 Acceptable 0.9837 Acceptable 0.9729 Acceptable 0.9928 Acceptable 0.9856 Acceptable 0.9795 Acceptable 0.9993 Acceptable 0.9835 Acceptable 0.9835 Acceptable 0.9985 Acceptable 0.9992 Acceptable 1.0041 Acceptable 1.0125 Acceptable 0.9801 Acceptable 0.9769 Acceptable 0.9724 Acceptable 1.0176 Generation 0.9604 Generation 0.9796 Generation 0.9656 Generation 0.9636 Generation 0.9837 Generation 0.9729 Generation 1.0136 Generation 1.0176 Generation 0.9928 Generation 0.9856 Generation 1.0117 Generation 0.9795 Generation
59208 [NEVADA 5161.00] TO BUS 59308 [NEVADA 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:				
59208 [NEVADA 5161.00] TO BUS 59308 [NEVADA 269.000] CKT 2 VOLTAGE LESS THAN 0.9500:				
59209 {SEDALIAS161.00} TO BUS 59271 [SEDN 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:				
59209 {SEDALIAS161.00} TO BUS 59272 [SEDS 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:				
59210 {MARTCTY5161.00} TO BUS 59287 [MARTCTY269.000] CKT 1 VOLTAGE LESS THAN 0.9500:				
59216 {BUTLER_5161.00} TO BUS 59240 [ADRIAN 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:				

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X--- BUS ---X)	V-CONT	V-INIT
59225 [PHILL 5161.00] TO BUS 59280 [PHILL 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59154 RGREEN#313.2 59278 HOLDEN 269.0 59279 RGREEN 269.0 59280 PHILL 269.0 59288 RGAFB 269.0 59289 BELTON 269.0 59290 BELTONS269.0 59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.8999 0.9313 0.8999 0.8994 0.9137 0.9059 0.8939 0.9165 0.9388 0.9402 0.9443 0.9418 0.9282 0.9387 0.9387	1.0085 Upgrade 0.9965 Upgrade 1.0085 Upgrade 1.0112 Upgrade 0.9801 Upgrade 0.9769 Upgrade 0.9724 Upgrade 0.9870 Upgrade 1.0041 Upgrade 1.0053 Upgrade 1.0085 Upgrade 1.0092 Upgrade 1.0030 Upgrade 1.0063 Upgrade 1.0063 Upgrade
59229 [ODESSA 5161.00] TO BUS 59267 [ODESSA 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59267 ODESSA 269.0 59288 RGAFB 269.0 59289 BELTON 269.0 59290 BELTONS269.0 59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59295 HSNVLN 269.0 59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.9392 0.9436 0.9378 0.9292 0.9071 0.9049 0.9048 0.9049 0.9062 0.9074 0.9107 0.9042 0.9042	1.0143 Acceptable 0.9801 Upgrade 0.9769 Upgrade 0.9724 Upgrade 0.9870 Upgrade 1.0041 Upgrade 1.0053 Upgrade 1.0085 Upgrade 1.0140 Upgrade 1.0092 Upgrade 1.0030 Upgrade 1.0063 Upgrade 1.0063 Upgrade
59239 [HSNVL 5161.00] TO BUS 59295 [HSNVL 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59154 RGREEN#313.2 59278 HOLDEN 269.0 59279 RGREEN 269.0 59280 BELTON 269.0 59288 RGAFB 269.0 59289 BELTON 269.0 59290 BELTONS269.0 59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59295 HSNVLN 269.0 59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.9259 0.9473 0.9259 0.9259 0.9314 0.9245 0.9144 0.9110 0.9117 0.9141 0.9452 0.9286 1.0595 1.0629	1.0085 Acceptable 0.9965 Acceptable 1.0085 Acceptable 0.9801 Upgrade 0.9769 Upgrade 0.9724 Upgrade 0.9801 Upgrade 0.9769 Upgrade 0.9724 Upgrade 0.9870 Upgrade 1.0041 Acceptable 1.0125 Acceptable
59279 [RGREEN 269.000] TO BUS 59280 [PHILL 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59288 RGAFB 269.0 59289 BELTON 269.0 59290 BELTONS269.0 59288 RGAFB 269.0 59289 BELTON 269.0 59290 BELTONS269.0 59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59295 HSNVLN 269.0 59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.9314 0.9245 0.9144 0.9110 0.9117 0.9141 0.9452 0.9286 1.0595 1.0629	0.9801 Upgrade 0.9769 Upgrade 0.9724 Upgrade 0.9801 Upgrade 0.9769 Upgrade 0.9724 Upgrade 0.9870 Upgrade 1.0041 Acceptable 1.0125 Acceptable
59280 [PHILL 269.000] TO BUS 59290 [BELTONS269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59288 RGAFB 269.0 59289 BELTON 269.0 59290 BELTONS269.0 59288 RGAFB 269.0 59289 BELTON 269.0 59290 BELTONS269.0 59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59295 HSNVLN 269.0 59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.9314 0.9245 0.9144 0.9110 0.9117 0.9141 0.9452 0.9286 1.0595 1.0629	0.9801 Upgrade 0.9769 Upgrade 0.9724 Upgrade 0.9801 Upgrade 0.9769 Upgrade 0.9724 Upgrade 0.9870 Upgrade 1.0041 Acceptable 1.0125 Acceptable
59284 [GRDVWTP269.000] TO BUS 59288 [RGAFB 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59288 RGAFB 269.0 59289 BELTON 269.0 59290 BELTONS269.0 59288 RGAFB 269.0 59289 BELTON 269.0 59290 BELTONS269.0 59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59295 HSNVLN 269.0 59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.9314 0.9245 0.9144 0.9110 0.9117 0.9141 0.9452 0.9286 1.0595 1.0629	0.9801 Upgrade 0.9769 Upgrade 0.9724 Upgrade 0.9801 Upgrade 0.9769 Upgrade 0.9724 Upgrade 0.9870 Upgrade 1.0041 Acceptable 1.0125 Acceptable
59285 [GRDWST 269.000] TO BUS 59286 [GRDWST 269.000] CKT 1 VOLTAGE GREATER THAN 1.0500:		59286 GRDWST 269.0 59287 MARTCTY269.0	1.0595 1.0629	1.0041 Acceptable 1.0125 Acceptable
59286 [GRDWST 269.000] TO BUS 59287 [MARTCTY269.000] CKT 1 VOLTAGE GREATER THAN 1.0500: VOLTAGE LESS THAN 0.9500:		59287 MARTCTY269.0 59284 GRDVWTP269.0 59285 GRDWCTY269.0 59286 GRDWST 269.0 59288 RGAFB 269.0 59289 BELTON 269.0 59290 BELTONS269.0 59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59295 HSNVLN 269.0 59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	1.0865 0.9490 0.9474 0.9434 0.9406 0.9398 0.9390 0.9243 0.9255	1.0125 Acceptable 0.9985 Acceptable 0.9992 Acceptable 1.0041 Acceptable 0.9801 Acceptable 0.9769 Acceptable 0.9724 Acceptable 0.9769 Upgrade 0.9724 Upgrade
59288 [RGAFB 269.000] TO BUS 59289 [BELTON 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59289 BELTON 269.0 59290 BELTONS269.0 59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59295 HSNVLN 269.0 59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.9243 0.9255	0.9769 Upgrade 0.9724 Upgrade
59289 [BELTON 269.000] TO BUS 59290 [BELTONS269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59290 BELTONS269.0 59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59295 HSNVLN 269.0 59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.9365	0.9724 Acceptable
59291 [FREEMAN269.000] TO BUS 59292 [ANCONDA269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59295 HSNVLN 269.0 59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.9362	0.9870 Acceptable
59292 [ANCONDA269.000] TO BUS 59293 [HSNVLW 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59295 HSNVLN 269.0 59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.9375	0.9870 Acceptable
Schedule No. 7		59292 ANCONDA269.0	0.9369	1.0041 Acceptable

VOLTAGE REPORT TABLE

OUTAGED BRANCH		VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59293 [HSNVLW 269.000] TO BUS 59294 [HSNVLS 269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59290 BELTONS269.0 59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.9293 0.9261 0.9259 0.9460 0.9120 0.9033 0.9027 0.9018 0.9454 0.9466 0.9423 0.9423	0.9870 Acceptable 1.0041 Acceptable 1.0053 Acceptable 0.9724 Acceptable 0.9870 Acceptable 1.0041 Acceptable 1.0053 Acceptable 1.0085 Acceptable 1.0092 Acceptable 1.0030 Acceptable 1.0063 Acceptable 1.0063 Acceptable
59294 [HSNVLS 269.000] TO BUS 59295 [HSNVL 269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59290 BELTONS269.0 59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.9460 0.9120 0.9033 0.9027 0.9018 0.9454 0.9466 0.9423 0.9423	0.9724 Acceptable 0.9870 Acceptable 1.0041 Acceptable 1.0053 Acceptable 1.0085 Acceptable 1.0092 Acceptable 1.0030 Acceptable 1.0063 Acceptable 1.0063 Acceptable
59295 [HSNVL 269.000] TO BUS 59296 [HSNVLSW269.000]	CKT 1	VOLTAGE LESS THAN 0.9500:	59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.9454 0.9466 0.9423 0.9423	1.0092 Acceptable 1.0030 Acceptable 1.0063 Acceptable 1.0063 Acceptable
59307 [NEVPLT 269.000] TO BUS 59308 [NEVADA 269.000]	CKT 1	VOLTAGE GREATER THAN 1.0500: VOLTAGE LESS THAN 0.9500:	59159 NEVADA#113.2 59308 NEVADA 269.0 59304 URICHTP269.0 59305 URICH 269.0 59306 APCITY 269.0 59307 NEVPLT 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	1.0640 1.0640 0.9068 0.9036 0.8482 0.7393 0.7364 0.6902	1.0176 Switch 1.0176 Switch 1.0078 Switch 1.0049 Switch 1.0039 Switch 1.0136 Switch 1.0117 Switch 0.9795 Switch
59308 [NEVADA 269.000] TO BUS 59309 [METZ 269.000]	CKT 1	VOLTAGE GREATER THAN 1.0500:	59159 NEVADA#113.2 59307 NEVPLT 269.0 59308 NEVADA 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	1.0933 1.0879 1.0933 1.0862 1.0566	1.0176 LTC 1.0136 LTC 1.0176 LTC 1.0117 LTC 0.9795 LTC
59309 [METZ 269.000] TO BUS 59310 [3M 269.000]	CKT 1	VOLTAGE GREATER THAN 1.0500:	59159 NEVADA#113.2 59258 WALKER 269.0 59259 DEDRCK 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59311 NEVJCT 269.0	1.0772 1.0630 1.0530 1.0721 1.0772 1.0712 1.0704	1.0176 LTC 0.9837 LTC 0.9729 LTC 1.0136 LTC 1.0176 LTC 0.9928 LTC 1.0117 LTC
59242 [CLINTON5161.00] TO BUS 96071 [SCLINTN 161.00]	CKT 1	VOLTAGE LESS THAN 0.9500:	59208 NEVADA 5 161 59242 CLINTON5 161 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59300 POSTOAK269.0 59301 CLNTPLT269.0 59302 CLNTGRN269.0 59303 CLINTON269.0 59304 URICHTP269.0 59305 URICH 269.0 59306 APCITY 269.0 59309 METZ 269.0 59310 3M 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.9368 0.7785 0.9040 0.9019 0.9234 0.9118 0.8714 0.8107 0.8089 0.8100 0.8342 0.8307 0.8611 0.9331 0.9254 0.9489 0.9143	0.9604 Accept Risk 1.0147 Accept Risk 0.9656 Accept Risk 0.9636 Accept Risk 0.9837 Accept Risk 0.9729 Accept Risk 1.0061 Accept Risk 1.0159 Accept Risk 1.0160 Accept Risk 1.0205 Accept Risk 1.0078 Accept Risk 1.0049 Accept Risk 1.0039 Accept Risk 0.9928 Accept Risk 0.9856 Accept Risk 1.0117 Accept Risk 0.9795 Accept Risk

VOLTAGE REPORT TABLE

(SPP-12	OUTAGED BRANCH) (VOLTAGE RANGE) (X---- BUS ----X)	V-CONT	V-INIT
59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1	VOLTAGE LESS THAN 0.9500:	59159 NEVADA#113.2	0.9436	1.0176 Generation	
59216 [BUTLER_5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1		59208 NEVADA 5 161	0.8972	0.9604 Generation	
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5161.00] CKT 1		59216 BUTLER_5 161	0.8560	0.9796 Generation	
		59256 KAMOTP 269.0	0.8871	0.9656 Generation	
		59257 ELDRDO 269.0	0.8849	0.9636 Generation	
		59258 WALKER 269.0	0.9068	0.9837 Generation	
		59259 DEDRCK 269.0	0.8950	0.9729 Generation	
		59307 NEVPLT 269.0	0.9405	1.0136 Generation	
		59308 NEVADA 269.0	0.9436	1.0176 Generation	
		59309 METZ 269.0	0.9166	0.9928 Generation	
		59310 3M 269.0	0.9088	0.9856 Generation	
		59311 NEVJCT 269.0	0.9384	1.0117 Generation	
		59312 LAMAR 269.0	0.9034	0.9795 Generation	
2006 SUMMER PEAK, EMPIRE DISTRICT ELECTRIC - AREA 544					
BASE CASE	VOLTAGE LESS THAN 0.9500:	59404 PUR390 269.0	0.9476	0.9476 above .90	
		59416 CHE299T134.5	0.9088	0.9088 above .90	
		59417 CHE299 134.5	0.9049	0.9049 above .90	
		59418 CHE300 134.5	0.9082	0.9082 above .90	
		59419 TWN388 134.5	0.9073	0.9073 above .90	
		59420 WEL186 134.5	0.8820	0.8820 provide solut.	
		59640 COL318 134.5	0.9469	0.9469 above .90	
59433 [STRKAMO269.000] TO BUS 59604 [BHJ415 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59433 STRKAMO269.0	0.9422	0.9634 above .90	
59436 [CUPTAP 269.000] TO BUS 59585 [DAD368 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59436 CUPTAP 269.0	0.9464	0.9983 above .90	
		59437 CUPSUB 269.0	0.9459	0.9977 above .90	
		59598 LKW400 269.0	0.9497	0.9728 above .90	
59464 [BOL 73 5161.00] TO BUS 59528 [BOL 73 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59425 HER209 269.0	0.8662	0.9801 capacitor 69kv	
		59432 BUF243J269.0	0.8859	0.9614 capacitor 69kv	
		59433 STRKAMO269.0	0.9147	0.9634 above .90	
		59434 BUF409 269.0	0.8682	0.9555 capacitor 69kv	
		59528 BOL 73 269.0	0.8929	1.0033 capacitor 69kv	
		59529 SED 80 269.0	0.9272	0.9754 above .90	
		59542 NIC170 269.0	0.9463	0.9759 above .90	
		59545 FRP217 269.0	0.9299	0.9897 above .90	
		59547 BUF243 269.0	0.8857	0.9613 capacitor 69kv	
		59567 BRT323 269.0	0.9088	0.9857 above .90	
		59572 FGC333 269.0	0.8883	0.9615 capacitor 69kv	
		59575 BUF342 269.0	0.8771	0.9637 capacitor 69kv	
		59576 REP345 269.0	0.9459	0.9663 above .90	
		59584 BOL367 269.0	0.8955	0.9891 capacitor 69kv	
		59586 WIL445 269.0	0.9354	0.9724 above .90	
		59587 STR370 269.0	0.9059	0.9617 above .90	
		59596 FRG397 269.0	0.9047	0.9631 above .90	
		59612 BOL602 269.0	0.8986	0.9870 capacitor 69kv	
		59637 HUM308 134.5	0.9267	0.9671 above .90	
		59639 DUN283 134.5	0.9408	0.9897 above .90	
		59640 COL318 134.5	0.9056	0.9469 above .90	
		59691 WIL369 269.0	0.9329	0.9701 above .90	

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59469 {RIV167 5161.00} TO BUS 59487 {HOC404 5161.00} CKT 1	VOLTAGE LESS THAN 0.9500:	59416 CHE299T134.5 59417 CHE299 134.5 59418 CHE300 134.5 59419 TWN388 134.5 59420 WEL186 134.5 59487 HOC404 5 161	0.8879 0.8838 0.8872 0.8862 0.8604 0.9484	0.9088 provide solut. 0.9049 provide solut. 0.9082 provide solut. 0.9073 provide solut. 0.8820 provide solut. 0.9812 above .90
59474 {OZD312 5161.00} TO BUS 59562 {OZD312 269.000} CKT 1	VOLTAGE LESS THAN 0.9500:	59562 OZD312 269.0	0.9430	1.0066 above .90
59478 {DAD368 5161.00} TO BUS 59493 {BOL431 5161.00} CKT 1	VOLTAGE LESS THAN 0.9500:	59603 FOR410 269.0 59425 HER209 269.0 59432 BUF243J269.0 59434 BUF409 269.0 59547 BUF243 269.0 59572 FGC333 269.0 59575 BUF342 269.0 59584 BOL367 269.0 59587 STR370 269.0 59596 FRG397 269.0 59612 BOL602 269.0 59637 HUM308 134.5 59436 CUPTAP 269.0 59437 CUPSUB 269.0 59536 ASH121 269.0 59586 WIL445 269.0 59637 HUM308 134.5 59640 COL318 134.5 59691 WIL369 269.0 59400 MON376J269.0 59401 MON376 269.0 59402 MON416J269.0 59403 MON416 269.0 59404 PUR390 269.0 59405 MON352J269.0 59406 MON352 269.0 59407 MON311J269.0 59408 MON311 269.0 59422 QNB347 269.0 59430 SAR362 269.0 59540 MON152 269.0 59544 WEN205 269.0 59582 SAR362T269.0 59591 MON383 269.0	0.9430 0.9306 0.9330 0.9208 0.9329 0.9354 0.9292 0.9465 0.9405 0.9410 0.9463 0.9406 0.9497 0.9492 0.9491 0.9491 0.9422 0.9217 0.9467 0.9067 0.9053 0.9001 0.8998 0.8727 0.9313 0.9311 0.9298 0.9297 0.9471 0.9387 0.9375 0.9418 0.9454 0.9360	1.0051 above .90 0.9801 above .90 0.9614 above .90 0.9555 above .90 0.9613 above .90 0.9615 above .90 0.9637 above .90 0.9891 above .90 0.9617 above .90 0.9631 above .90 0.9870 above .90 0.9671 above .90 0.9983 above .90 0.9977 above .90 0.9780 above .90 0.9724 above .90 0.9671 above .90 0.9469 above .90 0.9701 above .90 0.9788 above .90 0.9775 above .90 0.9727 above .90 0.9724 capacitor 69kv 0.9476 capacitor 69kv 1.0012 above .90 1.0011 above .90 0.9998 above .90 0.9997 above .90 0.9684 above .90 0.9803 above .90 1.0023 above .90 0.9895 above .90 0.9867 above .90 1.0056 above .90
59478 {DAD368 5161.00} TO BUS 59585 {DAD368 269.000} CKT 1	VOLTAGE LESS THAN 0.9500:			
59480 {MON383 5161.00} TO BUS 59591 {MON383 269.000} CKT 1	VOLTAGE LESS THAN 0.9500:			

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59487 [HOC404 5161.00] TO BUS 59601 [HOC404 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59409 SCAM66 269.0 59410 COL282T269.0 59411 COL282 269.0 59412 SEK225T269.0 59413 SEK225 269.0 59414 SMN425 269.0 59415 SHR444 269.0 59416 CHE299T134.5 59417 CHE299 134.5 59418 CHE300 134.5 59419 TWN388 134.5 59420 WEL186 134.5 59427 COM381 269.0 59590 QUA377 269.0	0.9449 0.9458 0.9396 0.9438 0.9437 0.9423 0.9427 0.8610 0.8569 0.8604 0.8594 0.8328 0.9421 0.9495	0.9775 above .90 0.9784 above .90 0.9723 above .90 0.9765 above .90 0.9764 above .90 0.9750 above .90 0.9754 above .90 0.9088 provide solut. 0.9049 provide solut. 0.9082 provide solut. 0.9073 provide solut. 0.8820 provide solut. 0.9854 above .90 0.9946 above .90 0.9567 above .90 0.9691 above .90 0.9831 above .90 0.9614 capacitor 69kv 0.9634 above .90 0.9555 capacitor 69kv 0.9613 capacitor 69kv 0.9615 above .90 0.9637 capacitor 69kv 0.9617 above .90 0.9631 above .90 0.9897 above .90 0.9891 above .90 0.9870 above .90 0.9671 above .90 0.9469 above .90 0.9614 above .90 0.9634 above .90 0.9613 above .90 0.9615 above .90 0.9617 above .90 0.9631 above .90 0.9469 above .90 0.9771 above .90 0.9717 above .90 0.9723 above .90 0.9780 above .90 0.9724 above .90 0.9701 above .90 0.9724 above .90 0.9701 above .90 0.9738 above .90 0.9767 above .90 0.9754 above .90 0.9870 above .90 0.9761 above .90
59488 [BRN412 5161.00] TO BUS 59492 [RDS424 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:		59492 RDS424 5 161	0.9356	0.9567 above .90
59524 [NEO 56 269.000] TO BUS 59563 [LIN314 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59426 SEN375 269.0 59524 NEO 56 269.0	0.9478 0.9406	0.9691 above .90 0.9831 above .90
59528 [BOL 73 269.000] TO BUS 59575 [BUF342 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59432 BUF243J269.0 59433 STRKAMO269.0 59434 BUF409 269.0 59547 BUF243 269.0 59572 FGC333 269.0 59575 BUF342 269.0 59587 STR370 269.0 59596 FRG397 269.0 59545 FRP217 269.0 59584 BOL367 269.0 59612 BOL602 269.0 59637 HUM308 134.5 59640 COL318 134.5 59432 BUF243J269.0 59433 STRKAMO269.0 59547 BUF243 269.0 59572 FGC333 269.0 59587 STR370 269.0 59596 FRG397 269.0 59640 COL318 134.5 59532 CAR108 269.0 59599 JAS403 269.0 59600 JAS403T269.0 59536 ASH121 269.000	0.8990 0.9341 0.8751 0.8988 0.9029 0.8840 0.9275 0.9270 0.9434 0.9146 0.9169 0.9364 0.9158 0.9414 0.9423 0.9412 0.9402 0.9368 0.9367 0.9198 0.9474 0.9467 0.9474 0.9482 0.9492 0.9468 0.9484 0.9459 0.9459 0.9489 0.9356 0.9247 0.9343	0.9614 capacitor 69kv 0.9555 capacitor 69kv 0.9613 capacitor 69kv 0.9615 above .90 0.9637 capacitor 69kv 0.9617 above .90 0.9631 above .90 0.9897 above .90 0.9891 above .90 0.9870 above .90 0.9671 above .90 0.9469 above .90 0.9614 above .90 0.9634 above .90 0.9613 above .90 0.9615 above .90 0.9617 above .90 0.9631 above .90 0.9469 above .90 0.9771 above .90 0.9717 above .90 0.9723 above .90 0.9780 above .90 0.9724 above .90 0.9701 above .90 0.9724 above .90 0.9701 above .90 0.9738 above .90 0.9767 above .90 0.9754 above .90 0.9870 above .90 0.9761 above .90
59528 [BOL 73 269.000] TO BUS 59584 [BOL367 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59637 HUM308 134.5 59640 COL318 134.5 59532 CAR108 269.0 59599 JAS403 269.0 59600 JAS403T269.0 59536 ASH121 269.0	0.9364 0.9158 0.9474 0.9467 0.9474 0.9482	0.9671 above .90 0.9469 above .90 0.9771 above .90 0.9717 above .90 0.9723 above .90 0.9780 above .90
59529 [SED 80 269.000] TO BUS 59596 [PRG397 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59586 WIL445 269.0 59691 WIL369 269.0 59586 WIL445 269.0 59691 WIL369 269.0 59424 RES364 269.0 59553 ALB262 269.0 59577 MTV351 269.0 59578 AUR355 269.0 59606 MTV420 269.0	0.9492 0.9468 0.9484 0.9459 0.9459 0.9489 0.9356 0.9247 0.9343	0.9724 above .90 0.9701 above .90 0.9724 above .90 0.9701 above .90 0.9738 above .90 0.9767 above .90 0.9754 above .90 0.9870 above .90 0.9761 above .90
59532 [CAR108 269.000] TO BUS 59533 [ATL109 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:				
59536 [ASH121 269.000] TO BUS 59585 [DAD368 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:				
59536 [ASH121 269.000] TO BUS 59586 [WIL445 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:				
59537 [AUR124 269.000] TO BUS 59578 [AUR355 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:				

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X---- BUG ----X)	V-CONT	V-INIT
59538 [DIA131 269.000] TO BUS 59595 [RNM393 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59421 GNB347J269.0 59422 GNB347 269.0 59423 DIA242 269.0 59430 SAR362 269.0 59538 DIA131 269.0	0.9257 0.9131 0.9251 0.9440 0.9312	0.9803 above .90 0.9684 above .90 0.9797 above .90 0.9803 above .90 0.9854 above .90	
59541 [RIV167 269.000] TO BUS 59602 [RIV406 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59416 CHE299T134.5 59417 CHE299 134.5 59418 CHE300 134.5 59419 TWN388 134.5 59420 WEL186 134.5 59429 BAX291 269.0	0.8872 0.8833 0.8866 0.8856 0.8600 0.9495	0.9088 provide solut. 0.9049 provide solut. 0.9082 provide solut. 0.9073 provide solut. 0.8820 provide solut. 0.9826 above .90	
59543 [NEO184 269.000] TO BUS 59560 [ROC296 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59560 ROC296 269.0 59597 NEO398 269.0	0.9449 0.9467	0.9832 above .90 0.9830 above .90	
59543 [NEO184 269.000] TO BUS 59563 [LIN314 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59426 SEN375 269.0 59524 NEO 56 269.0 59563 LIN314 269.0 59589 RAC375 269.0	0.9318 0.9087 0.9067 0.9462	0.9691 above .90 0.9831 above .90 0.9866 above .90 0.9828 above .90	
59545 [FRP217 269.000] TO BUS 59635 [FRP217 134.500] CKT 1 VOLTAGE LESS THAN 0.9500:	59635 FRP217 134.5 59637 HUM308 134.5 59639 DUN283 134.5 59640 COL318 134.5 59641 CAP304 134.5 59542 NIC170 269.0 59576 REP345 269.0	0.8486 0.8498 0.8485 0.8265 0.9410 0.9467 0.9078	1.0135 provide solut. 0.9671 provide solut. 0.9897 provide solut. 0.9469 provide solut. 1.0033 above .90 0.9759 above .90 0.9663 above .90	
59546 [BIL221 269.000] TO BUS 59580 [REP359 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59580 REP359 269.0 59411 COL282 269.0 59416 CHE299T134.5 59417 CHE299 134.5 59418 CHE300 134.5 59419 TWN388 134.5 59420 WEL186 134.5	0.8879 0.9494 0.8755 0.8714 0.8749 0.8738 0.8477	0.9611 capacitor 69kv 0.9723 above .90 0.9088 provide solut. 0.9049 provide solut. 0.9082 provide solut. 0.9073 provide solut. 0.8820 provide solut.	
59562 [OZD312 269.000] TO BUS 59603 [FOR410 269.000] CKT 1 VOLTAGE LESS THAN 0.9500: 59568 [STK324 269.000] TO BUS 59616 [STK631J269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59603 FOR410 269.0 59568 STK324 269.0 59637 HUM308 134.5 59638 STK324 134.5 59640 COL318 134.5 59641 CAP304 134.5 59637 HUM308 134.5 59638 STK324 134.5 59640 COL318 134.5 59641 CAP304 134.5 59570 O2K330 269.0 59609 OZK434 269.0	0.9419 0.8979 0.9237 0.9221 0.9029 0.9219 0.9290 0.9285 0.9086 0.9283 0.8604 0.8656	1.0051 above .90 0.9905 capacitor 69kv 0.9671 above .90 1.0232 above .90 0.9469 above .90 1.0033 above .90 0.9671 above .90 1.0232 above .90 0.9469 above .90 1.0033 above .90 0.9895 capacitor 69kv 0.9858 capacitor 69kv	
59568 [STK324 269.000] TO BUS 59638 [STK324 134.500] CKT 1 VOLTAGE LESS THAN 0.9500:	59640 COL318 134.5 59641 CAP304 134.5 59637 HUM308 134.5 59638 STK324 134.5 59640 COL318 134.5 59641 CAP304 134.5 59637 HUM308 134.5 59638 STK324 134.5 59640 COL318 134.5 59641 CAP304 134.5 59570 O2K330 269.0 59609 OZK434 269.0	0.9283 0.9283 0.9290 0.9285 0.9086 0.9283 0.9290 0.9285 0.9086 0.9283 0.8604 0.8656	1.0033 above .90 0.9895 capacitor 69kv 0.9858 capacitor 69kv	
59570 [OZK330 269.000] TO BUS 59604 [BHJ415 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59609 OZK434 269.0	0.9370	0.9858 above .90	
59570 [OZK330 269.000] TO BUS 59609 [OZK434 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59609 OZK434 269.0	0.9370	0.9858 above .90	
59587 [STR370 269.000] TO BUS 59596 [FRG397 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59433 STRKAMO269.0 59587 STR370 269.0	0.9383 0.9327	0.9634 above .90 0.9617 above .90	
59590 [QUA377 269.000] TO BUS 59601 [HOC404 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59427 COM381 269.0 59579 COM381T269.0 59590 QUA377 269.0	0.9035 0.9121 0.9097	0.9854 above .90 0.9933 above .90 0.9946 above .90	

VOLTAGE REPORT TABLE

(OUTAGED BRANCH) (VOLTAGE RANGE)	(X---- BUS ----X)	V-CONT	V-INIT
59598 [LKW400 269.000] TO BUS 59613 [GRN614 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59550 GLD251 269.0	0.9437	0.9702 above .90
59605 [STK418 269.000] TO BUS 59614 [SK631CJ269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59598 LKW400 269.0	0.9393	0.9728 above .90
	59548 BOS249 269.0	0.9430	0.9711 above .90
	59549 ARC250 269.0	0.9190	0.9841 above .90
	59550 GLD251 269.0	0.9337	0.9702 above .90
	59568 STK324 269.0	0.9105	0.9905 above .90
	59598 LKW400 269.0	0.9284	0.9728 above .90
	59613 GRN614 269.0	0.9280	0.9770 above .90
	59614 SK631CJ269.0	0.9098	0.9913 above .90
	59616 STK631J269.0	0.9105	0.9907 above .90
	59637 HUM308 134.5	0.9284	0.9671 above .90
	59638 STK324 134.5	0.9425	1.0232 above .90
	59640 COL318 134.5	0.9078	0.9469 above .90
	59641 CAP304 134.5	0.9376	1.0033 above .90
	59637 HUM308 134.5	0.8481	0.9671 provide solut.
	59639 DUN283 134.5	0.8464	0.9897 provide solut.
	59640 COL318 134.5	0.8246	0.9469 provide solut.
	59641 CAP304 134.5	0.9404	1.0033 above .90
	59637 HUM308 134.5	0.8544	0.9671 provide solut.
	59640 COL318 134.5	0.8311	0.9469 provide solut.
	59641 CAP304 134.5	0.9433	1.0033 above .90
	59637 HUM308 134.5	0.9291	0.9671 above .90
	59640 COL318 134.5	0.9087	0.9469 above .90
	59637 HUM308 134.5	0.9275	0.9671 above .90
	59640 COL318 134.5	0.9070	0.9469 above .90
	59641 CAP304 134.5	0.9261	1.0033 above .90
	59428 SWC414 269.0	0.9461	0.9883 above .90
	59569 DEC326 269.0	0.9479	1.0088 above .90
	59594 DEC392 269.0	0.9493	1.0118 above .90
	59617 GRA700 269.0	0.9467	1.0025 above .90
	59473 RD8295 5 161	0.9260	0.9580 above .90
	59474 OZD312 5 161	0.9206	0.9651 above .90
	59475 BRN331 5 161	0.9183	0.9627 above .90
	59482 HOL387 5 161	0.9186	0.9672 above .90
	59488 BRN412 5 161	0.9183	0.9627 above .90
	59489 BRN413 5 161	0.9169	0.9665 above .90
	59492 RD8424 5 161	0.9223	0.9567 above .90
	59495 GRT433 5 161	0.9173	0.9643 above .90
	59497 RV8438 5 161	0.9171	0.9695 above .90
	59648 OZD312 14.60	0.9443	0.9880 above .90
	59548 BOS249 269.0	0.9431	0.9711 above .90
	59549 ARC250 269.0	0.9191	0.9841 above .90
	59550 GLD251 269.0	0.9337	0.9702 above .90
	59568 STK324 269.0	0.9107	0.9905 above .90
	59598 LKW400 269.0	0.9284	0.9728 above .90
	59605 STK418 269.0	0.9100	0.9927 above .90
	59613 GRN614 269.0	0.9281	0.9770 above .90
	59614 SK631CJ269.0	0.9100	0.9913 above .90
	59616 STK631J269.0	0.9107	0.9907 above .90
	59637 HUM308 134.5	0.9285	0.9671 above .90
	59638 STK324 134.5	0.9427	1.0232 above .90
	59640 COL318 134.5	0.9079	0.9469 above .90
	59641 CAP304 134.5	0.9377	1.0033 above .90

VOLTAGE REPORT TABLE

(OUTAGED BRANCH	) ( VOLTAGE RANGE	) (X---- BUS ----X)	V-CONT	V-INIT
CONTINGENCY SPP-12				
59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:		59637 HUM308 134.5	0.9443	0.9671 above .90
59216 [BUTLER_5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1		59640 COL318 134.5	0.9236	0.9469 above .90
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5161.00] CKT 1				
2006 SUMMER PEAK ST. JOSEPH LIGHT AND POWER - AREA 679				
(OUTAGED BRANCH	) ( VOLTAGE RANGE	) (X---- BUS ----X)	V-CONT	V-INIT
69703 [ST JOE 5161.00] TO BUS 69708 [WOODBIN5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:		69704 EAST 5 161	0.9494	1.0020 Acceptable
		69708 WOODBINS 161	0.9492	1.0063 Acceptable
2006 WINTER PEAK - MISSOURI PUBLIC SERVICE - AREA 540				
(OUTAGED BRANCH	) ( VOLTAGE RANGE	) (X---- BUS ----X)	V-CONT	V-INIT
59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:		59216 BUTLER_5 161	0.9462	1.0058 Acceptable
		59240 ADRIAN 5 161	0.9452	1.0115 Acceptable
		59256 KAMOTP 269.0	0.9314	0.9803 Acceptable
		59257 ELDRDO 269.0	0.9300	0.9791 Acceptable
		59258 WALKER 269.0	0.9434	0.9918 Acceptable
		59259 DEDRCK 269.0	0.9363	0.9850 Acceptable
		59309 METZ 269.0	0.9494	0.9974 Acceptable
		59310 3M 269.0	0.9445	0.9927 Acceptable
		59312 LAMAR 269.0	0.9416	0.9892 Acceptable
		59256 KAMOTP 269.0	0.9482	0.9803 Acceptable
		59257 ELDRDO 269.0	0.9469	0.9791 Acceptable
		59256 KAMOTP 269.0	0.9373	0.9803 Acceptable
		59257 ELDRDO 269.0	0.9360	0.9791 Acceptable
		59258 WALKER 269.0	0.9493	0.9918 Acceptable
		59259 DEDRCK 269.0	0.9422	0.9850 Acceptable
		59312 LAMAR 269.0	0.9474	0.9892 Acceptable
		59154 RGREEN#313.2	0.9480	1.0086 Acceptable
		59279 RGREEN 269.0	0.9480	1.0086 Acceptable
		59280 PHILL 269.0	0.9477	1.0104 Acceptable
		59290 BELTONS269.0	0.9450	0.9862 Acceptable
		59287 MARTCTY269.0	1.0560	1.0130 LTC
		59292 ANCONDA269.0	0.9462	1.0043 Acceptable
		59293 HSNVLW 269.0	0.9459	1.0050 Acceptable
		59294 HSNVLS 269.0	0.9453	1.0069 Acceptable
		59306 APCITY 269.0	0.9324	1.0037 Switch
		59307 NEVPLT 269.0	0.8795	1.0106 Switch
		59311 NEVJCT 269.0	0.8781	1.0095 Switch
		59312 LAMAR 269.0	0.8543	0.9892 Switch
		59159 NEVADA#113.2	1.0519	1.0131 LTC
		59308 NEVADA 269.0	1.0519	1.0131 LTC
		59242 CLINTON5 161	0.9038	1.0245 Acceptable
		59300 POSTOAK269.0	0.9407	1.0059 Acceptable
		59301 CLNTPLT269.0	0.9068	1.0088 Acceptable
		59302 CLNTGRN269.0	0.9058	1.0087 Acceptable
		59303 CLINTON269.0	0.9065	1.0115 Acceptable
		59304 URICHTP269.0	0.9209	1.0052 Acceptable
		59305 URICH 269.0	0.9189	1.0033 Acceptable
		59306 APCITY 269.0	0.9365	1.0037 Acceptable

VOLTAGE REPORT TABLE

(OUTAGED BRANCH CONTINGENCY SPP-12	) ( VOLTAGE RANGE	) (X---- BUS ----X)	V-CONT	V-INIT
59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:		59216 BUTLER_5 161	0.9190	1.0058 Acceptable
59216 [BUTLER_5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1		59256 KAMOTP 269.0	0.9388	0.9803 Acceptable
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5161.00] CKT 1		59257 ELDRDO 269.0	0.9375	0.9791 Acceptable
		59259 DEDRCK 269.0	0.9437	0.9850 Acceptable
		59312 LAMAR 269.0	0.9488	0.9892 Acceptable

2006 WINTER PEAK - EMPIRE DISTRICT ELECTRIC - AREA 544

(OUTAGED BRANCH BASE CASE	) ( VOLTAGE RANGE VOLTAGE LESS THAN 0.9500:	) (X---- BUS ----X)	V-CONT	V-INIT
59436 [CUPTAP 269.000] TO BUS 59585 [DAD368 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59420 WEL186 134.5	0.9404	0.9404 above .90
		59640 COL318 134.5	0.9351	0.9351 above .90
		59436 CUPTAP 269.0	0.9429	1.0035 above .90
		59437 CUPSUB 269.0	0.9426	1.0033 above .90
		59598 LKW400 269.0	0.9463	0.9733 above .90
		59613 GRN614 269.0	0.9451	0.9754 above .90
		59598 LKW400 269.0	0.9464	0.9733 above .90
		59613 GRN614 269.0	0.9452	0.9754 above .90
		59425 HER209 269.0	0.8640	0.9887 capacitor 69kv
		59432 BUF243J269.0	0.8841	0.9684 capacitor 69kv
		59433 STRKAMO269.0	0.9210	0.9753 above .90
		59434 BUF409 269.0	0.8641	0.9612 capacitor 69kv
		59528 BOL 73 269.0	0.8864	1.0078 capacitor 69kv
		59529 BED 80 269.0	0.9337	0.9876 above .90
		59545 FRP217 269.0	0.9237	0.9905 above .90
		59547 BUF243 269.0	0.8839	0.9683 capacitor 69kv
		59567 BRT323 269.0	0.9089	0.9941 above .90
		59572 FGC333 269.0	0.8870	0.9688 capacitor 69kv
		59575 BUF342 269.0	0.8735	0.9696 capacitor 69kv
		59584 BOL367 269.0	0.8837	0.9875 capacitor 69kv
		59586 WIL445 269.0	0.9455	0.9866 above .90
		59587 STR370 269.0	0.9104	0.9727 above .90
		59596 FRG397 269.0	0.9080	0.9733 above .90
		59612 BOL602 269.0	0.8875	0.9856 capacitor 69kv
		59635 FRP217 134.5	0.9468	1.0103 above .90
		59637 HUM308 134.5	0.9071	0.9527 above .90
		59639 DUN283 134.5	0.9256	0.9803 above .90
		59640 COL318 134.5	0.8885	0.9351 provide solut.
		59691 WIL369 269.0	0.9441	0.9853 above .90
		59562 OZD312 269.0	0.9499	1.0131 above .90
		59603 FOR410 269.0	0.9499	1.0117 above .90
		59637 HUM308 134.5	0.9274	0.9527 above .90
		59640 COL318 134.5	0.9093	0.9351 above .90
		59401 MON376 269.0	0.9498	0.9915 above .90
		59402 MON416J269.0	0.9461	0.9880 above .90
		59403 MON416 269.0	0.9458	0.9878 above .90
		59404 PUR390 269.0	0.9276	0.9705 above .90
		59416 CHE299T134.5	0.9315	0.9584 above .90
		59417 CHE299 134.5	0.9288	0.9557 above .90
		59418 CHE300 134.5	0.9311	0.9580 above .90
		59419 TWN388 134.5	0.9304	0.9574 above .90
		59420 WEL186 134.5	0.9131	0.9404 above .90

VOLTAGE REPORT TABLE

59528 [BOL 73 269.000] TO BUS 59575 [BUF342 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59432 BUF243J269.0	0.9065	0.9684 above .90
	59433 STRKAMO269.0	0.9463	0.9753 above .90
	59434 BUF409 269.0	0.8817	0.9612 capacitor 69kv
	59547 BUF243 269.0	0.9063	0.9683 above .90
	59572 FGC333 269.0	0.9104	0.9688 above .90
	59575 BUF342 269.0	0.8909	0.9696 capacitor 69kv
	59587 STR370 269.0	0.9388	0.9727 above .90
	59596 FRG397 269.0	0.9376	0.9733 above .90
	59545 FRP217 269.0	0.9203	0.9905 above .90
	59584 BOL367 269.0	0.8749	0.9875 capacitor 69kv
	59612 BOL602 269.0	0.8796	0.9856 capacitor 69kv
	59635 FRP217 134.5	0.9447	1.0103 above .90
	59637 HUM308 134.5	0.9048	0.9527 above .90
	59639 DUN283 134.5	0.9234	0.9803 above .90
	59640 COL318 134.5	0.8862	0.9351 provide solut.
	59432 BUF243J269.0	0.9452	0.9684 above .90
	59547 BUF243 269.0	0.9451	0.9683 above .90
	59572 FGC333 269.0	0.9442	0.9688 above .90
	59587 STR370 269.0	0.9441	0.9727 above .90
	59596 FRG397 269.0	0.9430	0.9733 above .90
	59421 GNB347J269.0	0.9466	0.9898 above .90
	59422 GNB347 269.0	0.9368	0.9800 above .90
	59423 DIA242 269.0	0.9461	0.9892 above .90
	59426 SEN375 269.0	0.9484	0.9758 above .90
	59524 NEO 56 269.0	0.9296	0.9848 above .90
	59563 LIN314 269.0	0.9278	0.9874 above .90
	59637 HUM308 134.5	0.9273	0.9527 above .90
	59639 DUN283 134.5	0.9495	0.9803 above .90
	59640 COL318 134.5	0.9093	0.9351 above .90
	59635 FRP217 134.5	0.7866	1.0103 provide solut.
	59637 HUM308 134.5	0.7896	0.9527 provide solut.
	59639 DUN283 134.5	0.7866	0.9803 provide solut.
	59640 COL318 134.5	0.7681	0.9351 provide solut.
	59641 CAP304 134.5	0.9102	0.9959 above .90
	59576 REP345 269.0	0.9487	0.9822 above .90
	59580 REP359 269.0	0.9360	0.9785 above .90
	59603 FOR410 269.0	0.9489	1.0117 above .90
	59568 STK324 269.000] TO BUS 59616 [STK631J269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	0.8748	0.9883 capacitor 69kv
	59637 HUM308 134.5	0.8895	0.9527 provide solut.
	59638 STK324 134.5	0.8892	1.0197 provide solut.
	59639 DUN283 134.5	0.9495	0.9803 above .90
	59640 COL318 134.5	0.8806	0.9351 provide solut.
	59641 CAP304 134.5	0.8980	0.9959 provide solut.
	59637 HUM308 134.5	0.8994	0.9527 provide solut.
	59638 STK324 134.5	0.8993	1.0197 provide solut.
	59640 COL318 134.5	0.8815	0.9351 provide solut.
	59641 CAP304 134.5	0.8990	0.9959 provide solut.
	59570 OZK330 269.000] TO BUS 59604 [BHJ415 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	0.8754	0.9995 capacitor 69kv
	59609 OZK434 269.0	0.8798	0.9953 capacitor 69kv
	59609 OZK434 269.0	0.9404	0.9953 above .90
	59427 COM381 269.0	0.9319	0.9963 above .90
	59579 COM381T269.0	0.9369	1.0010 above .90
	59590 QUA377 269.0	0.9350	1.0021 above .90

VOLTAGE REPORT TABLE

59605 [STK418 269.000] TO BUS 59614 [SK631CJ269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59548 BOS249 269.0 59549 ARC250 269.0 59550 GLD251 269.0 59568 STK324 269.0 59598 LKW400 269.0 59613 GRN614 269.0 59614 SK631CJ269.0 59616 STK631J269.0 59637 HUM308 134.5 59638 STK324 134.5 59640 COL318 134.5 59641 CAP304 134.5	0.9462 0.9160 0.9356 0.9068 0.9282 0.9259 0.9061 0.9068 0.9122 0.9388 0.8942 0.9295	0.9750 above .90 0.9823 above .90 0.9729 above .90 0.9883 above .90 0.9733 above .90 0.9754 above .90 0.9891 above .90 0.9885 above .90 0.9527 above .90 1.0197 above .90 0.9351 provide solut. 0.9959 above .90
59635 [FRP217 134.500] TO BUS 59639 [DUN283 134.500] CKT 1 VOLTAGE GREATER THAN 1.0500: VOLTAGE LESS THAN 0.9500:	59635 FRP217 134.5 59637 HUM308 134.5 59639 DUN283 134.5 59640 COL318 134.5 59641 CAP304 134.5	1.0502 0.7892 0.7858 0.7680 0.9099	1.0103 above .90 0.9527 provide solut. 0.9803 provide solut. 0.9351 provide solut. 0.9959 above .90
59637 [HUM308 134.500] TO BUS 59639 [DUN283 134.500] CKT 1 VOLTAGE LESS THAN 0.9500:	59637 HUM308 134.5 59640 COL318 134.5 59641 CAP304 134.5	0.8060 0.7850 0.9184	0.9527 provide solut. 0.9351 provide solut. 0.9959 above .90
59637 [HUM308 134.500] TO BUS 59641 [CAP304 134.500] CKT 1 VOLTAGE LESS THAN 0.9500:	59637 HUM308 134.5 59640 COL318 134.5	0.9000 0.8821	0.9527 provide solut. 0.9351 provide solut.
59638 [STK324 134.500] TO BUS 59641 [CAP304 134.500] CKT 1 VOLTAGE LESS THAN 0.9500:	59637 HUM308 134.5 59639 DUN283 134.5 59640 COL318 134.5 59641 CAP304 134.5	0.8978 0.9490 0.8799 0.8968	0.9527 provide solut. 0.9803 above .90 0.9351 provide solut. 0.9959 provide solut.
59497 [RVS438 5161.00] TO BUS 52672 [TABLE R5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59473 RDS295 5 161 59474 OZD312 5 161 59475 BRN331 5 161 59482 HOL387 5 161 59488 BRN412 5 161 59489 BRN413 5 161 59492 RDS424 5 161 59495 GRT433 5 161 59497 RVS438 5 161	0.9442 0.9366 0.9346 0.9345 0.9347 0.9328 0.9407 0.9334 0.9329	0.9737 above .90 0.9773 above .90 0.9753 above .90 0.9768 above .90 0.9754 above .90 0.9760 above .90 0.9723 above .90 0.9764 above .90 0.9806 above .90
59605 [STK418 269.000] TO BUS 96118 [5STKAEC 161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59548 BOS249 269.0 59549 ARC250 269.0 59550 GLD251 269.0 59568 STK324 269.0 59598 LKW400 269.0 59605 STK418 269.0 59613 GRN614 269.0 59614 SK631CJ269.0 59616 STK631J269.0 59637 HUM308 134.5 59638 STK324 134.5 59640 COL318 134.5 59641 CAP304 134.5	0.9466 0.9154 0.9358 0.9060 0.9281 0.9053 0.9255 0.9053 0.9061 0.9098 0.9377 0.8913 0.9276	0.9750 above .90 0.9823 above .90 0.9729 above .90 0.9883 above .90 0.9733 above .90 0.9906 above .90 0.9754 above .90 0.9891 above .90 0.9885 above .90 0.9527 above .90 1.0197 above .90 0.9351 provide solut. 0.9959 above .90

VOLTAGE REPORT TABLE

2006 WINTER PEAK - ST. JOSEPH LIGHT AND POWER - AREA 679

NONE

2010 SUMMER PEAK - MISSOURI PUBLIC SERVICE - AREA 540

(	OUTAGED BRANCH	) (	VOLTAGE RANGE	) (X---- BUS ----X)	V-CONT	V-INIT
BASE CASE			VOLTAGE LESS THAN 0.9500:	59208 NEVADA 5 161 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59159 NEVADA#113.2 59208 NEVADA 5 161 59216 BUTLER_5 161 59240 ADRIAN 5 161 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59304 URICHTP269.0 59305 URICH 269.0 59306 APCITY 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59310 3M 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0 59159 NEVADA#113.2 59208 NEVADA 5 161 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59306 APCITY 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59310 3M 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0 59159 NEVADA#113.2 59208 NEVADA 5 161 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59306 APCITY 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59310 3M 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0 59159 NEVADA#113.2 59208 NEVADA 5 161 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59306 APCITY 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59310 3M 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.9452 0.9456 0.9433 0.8750 0.8386 0.8288 0.8266 0.8034 0.8007 0.8284 0.8134 0.9423 0.9387 0.9111 0.8719 0.8750 0.8410 0.8313 0.8692 0.8253 0.9263 0.8799 0.8598 0.8572 0.8830 0.8691 0.9440 0.9227 0.9263 0.8946 0.8855 0.9202 0.8792 0.9217 0.8548 0.8522 0.8781 0.8641 0.9433 0.9183 0.9217 0.8899 0.8807 0.9158 0.8746	0.9452 Acceptable 0.9456 Acceptable 0.9433 Acceptable 1.0059 Generation 0.9452 Generation 0.9692 Generation 0.9833 Generation 0.9456 Generation 0.9433 Generation 0.9666 Generation 0.9540 Generation 1.0015 Generation 0.9981 Generation 0.9948 Generation 1.0015 Generation 1.0059 Generation 0.9772 Generation 0.9688 Generation 0.9992 Generation 0.9619 Generation 1.0059 Not Valid 0.9452 Not Valid 0.9456 Not Valid 0.9433 Not Valid 0.9666 Not Valid 0.9540 Not Valid 0.9948 Not Valid 1.0015 Not Valid 1.0059 Not Valid 0.9772 Not Valid 0.9688 Not Valid 0.9992 Not Valid 0.9619 Not Valid 1.0059 Generation 0.9456 Generation 0.9433 Generation 0.9666 Generation 0.9540 Generation 0.9948 Generation 1.0015 Generation 1.0059 Generation 0.9772 Generation 0.9688 Generation 0.9992 Generation 0.9619 Generation
59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:						
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:						
59208 [NEVADA 5161.00] TO BUS 59308 [NEVADA 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:						

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59208 [NEVADA 5161.00] TO BUS 59308 [NEVADA 269.000] CKT 2	VOLTAGE LESS THAN 0.9500:	59159 NEVADA#113.2 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59310 3M 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.9450 0.8801 0.8776 0.9027 0.8892 0.9413 0.9450 0.9141 0.9052 0.9389 0.8989 0.9437 0.9486 0.9487 0.9487 0.9465 0.9455 0.9450 0.8986 0.8569 0.8515 0.8298 0.8272 0.8538 0.8394 0.9493 0.9260 0.8953 0.8986 0.8659 0.8565 0.8927 0.8504	1.0059 Generation 0.9456 Generation 0.9433 Generation 0.9666 Generation 0.9540 Generation 1.0015 Generation 1.0059 Generation 0.9772 Generation 0.9688 Generation 0.9992 Generation 0.9619 Generation 0.9683 Acceptable 0.9701 Acceptable 1.0100 Acceptable 1.0189 Acceptable 0.9844 Acceptable 0.9805 Acceptable 0.9757 Acceptable 1.0059 Not Valid 0.9452 Not Valid 0.9692 Not Valid 0.9456 Not Valid 0.9433 Not Valid 0.9666 Not Valid 0.9540 Not Valid 0.9981 Not Valid 0.9948 Not Valid 1.0015 Not Valid 1.0059 Not Valid 0.9772 Not Valid 0.9688 Not Valid 0.9992 Not Valid 0.9619 Not Valid 0.9757 Upgrade 0.9600 Acceptable 0.9609 Acceptable 1.0147 Acceptable 0.9805 Acceptable 0.9757 Acceptable 0.9876 Acceptable 1.0047 Acceptable 1.0059 Acceptable 1.0092 Acceptable 1.0148 Acceptable 1.0104 Acceptable 1.0053 Acceptable 1.0071 Acceptable 1.0071 Acceptable 1.0139 LTC 0.9997 Acceptable
59209 [SEDALIA5161.00] TO BUS 59217 [WINDSR 5161.00] CKT 1	VOLTAGE LESS THAN 0.9500:	59209 SEDALIAS 161 59241 SEDEAST5 161	0.9437 0.9486	0.9683 Acceptable 0.9701 Acceptable
59210 [MARTCTY5161.00] TO BUS 59287 [MARTCTY269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59286 GRDWST 269.0 59287 MARTCTY269.0 59288 RGAFB 269.0 59289 BELTON 269.0 59290 BELTONS269.0	0.9487 0.9487 0.9465 0.9455 0.9450	1.0100 Acceptable 1.0189 Acceptable 0.9844 Acceptable 0.9805 Acceptable 0.9757 Acceptable
59216 [BUTLER_5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1	VOLTAGE LESS THAN 0.9500:	59159 NEVADA#113.2 59208 NEVADA 5 161 59216 BUTLER_5 161 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59305 URICH 269.0 59306 APCITY 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59310 3M 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.8986 0.8569 0.8515 0.8298 0.8272 0.8538 0.8394 0.9493 0.9260 0.8953 0.8986 0.8659 0.8565 0.8927 0.8504	1.0059 Not Valid 0.9452 Not Valid 0.9692 Not Valid 0.9456 Not Valid 0.9433 Not Valid 0.9666 Not Valid 0.9540 Not Valid 0.9981 Not Valid 0.9948 Not Valid 1.0015 Not Valid 1.0059 Not Valid 0.9772 Not Valid 0.9688 Not Valid 0.9992 Not Valid 0.9619 Not Valid 0.9757 Upgrade 0.9600 Acceptable 0.9609 Acceptable 1.0147 Acceptable 0.9805 Acceptable 0.9757 Acceptable 0.9876 Acceptable 1.0047 Acceptable 1.0059 Acceptable 1.0092 Acceptable 1.0148 Acceptable 1.0104 Acceptable 1.0053 Acceptable 1.0071 Acceptable 1.0071 Acceptable 1.0139 LTC 0.9997 Acceptable
59225 [PHILL 5161.00] TO BUS 59280 [PHILL 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59290 BELTONS269.0	0.9467	0.9757 Upgrade
59228 [WBURGE 5161.00] TO BUS 59229 [ODESSA 5161.00] CKT 1	VOLTAGE LESS THAN 0.9500:	59228 WBURGE 5 161 59234 WAFF 5 161	0.9299 0.9347	0.9600 Acceptable 0.9609 Acceptable
59229 [ODESSA 5161.00] TO BUS 59267 [ODESSA 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59267 ODESSA 269.0	0.9285	1.0147 Acceptable
59239 [HSNVL 5161.00] TO BUS 59295 [HSNVL 269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59289 BELTON 269.0 59290 BELTONS269.0 59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59295 HSNVL 269.0 59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.9499 0.9416 0.9195 0.9183 0.9184 0.9188 0.9205 0.9221 0.9263 0.9185 0.9185	0.9805 Acceptable 0.9757 Acceptable 0.9876 Acceptable 1.0047 Acceptable 1.0059 Acceptable 1.0092 Acceptable 1.0148 Acceptable 1.0104 Acceptable 1.0053 Acceptable 1.0071 Acceptable 1.0071 Acceptable 1.0139 LTC 0.9997 Acceptable
59261 [LBRTYWT269.000] TO BUS 59262 [LIBERTY269.000] CKT 1	VOLTAGE GREATER THAN 1.0500:	59261 LBRTYWT269.0	1.0596	1.0139 LTC
59269 [WBURGE 269.000] TO BUS 59270 [KNOSTER269.000] CKT 1	VOLTAGE LESS THAN 0.9500:	59270 KNOSTER269.0	0.9483	0.9997 Acceptable

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59280 [PHILL 269.000] TO BUS 59290 [BELTONS269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59288 RGAFB 269.0	0.9178	0.9844 Upgrade
		59289 BELTON 269.0	0.9093	0.9805 Upgrade
		59290 BELTONS269.0	0.8969	0.9757 Upgrade
		59291 FREEMAN269.0	0.9381	0.9876 Upgrade
59284 [GRDVWTP269.000] TO BUS 59285 [GRDWCTY269.000] CKT 1 VOLTAGE GREATER THAN 1.0500:		59287 MARTCTY269.0	1.0558	1.0189 LTC
59284 [GRDVWTP269.000] TO BUS 59288 [RGAFB 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59288 RGAFB 269.0	0.9139	0.9844 Acceptable
		59289 BELTON 269.0	0.9147	0.9805 Acceptable
		59290 BELTONS269.0	0.9174	0.9757 Acceptable
		59291 FREEMAN269.0	0.9478	0.9876 Acceptable
59285 [GRDWCTY269.000] TO BUS 59286 [GRDWST 269.000] CKT 1 VOLTAGE GREATER THAN 1.0500:		59286 GRDWST 269.0	1.0723	1.0100 LTC
59286 [GRDWST 269.000] TO BUS 59287 [MARTCTY269.000] CKT 1 VOLTAGE GREATER THAN 1.0500:	VOLTAGE LESS THAN 0.9500:	59287 MARTCTY269.0	1.0761	1.0189 LTC
		59288 GRDWST 269.0	1.1039	1.0189 LTC
		59288 RGAFB 269.0	0.9486	1.0100 Acceptable
		59289 BELTON 269.0	0.9464	0.9844 Acceptable
		59290 BELTONS269.0	0.9454	0.9805 Acceptable
59288 [RGAFB 269.000] TO BUS 59289 [BELTON 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59289 BELTON 269.0	0.9449	0.9757 Acceptable
59289 [BELTON 269.000] TO BUS 59290 [BELTONS269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59290 BELTONS269.0	0.9290	0.9805 Acceptable
59291 [FREEMAN269.000] TO BUS 59292 [ANCONDA269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59290 BELTONS269.0	0.9303	0.9757 Acceptable
59292 [ANCONDA269.000] TO BUS 59293 [HSNVLW 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59291 FREEMAN269.0	0.9429	0.9757 Acceptable
59293 [HSNVLW 269.000] TO BUS 59294 [HSNVLS 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59291 FREEMAN269.0	0.9402	0.9876 Acceptable
59294 [HSNVLS 269.000] TO BUS 59295 [HSNVL 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59291 FREEMAN269.0	0.9392	0.9876 Acceptable
59293 [HSNVLW 269.000] TO BUS 59294 [HSNVLS 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59292 ANCONDA269.0	0.9386	1.0047 Acceptable
59294 [HSNVLS 269.000] TO BUS 59295 [HSNVL 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59291 FREEMAN269.0	0.9301	0.9876 Acceptable
59295 [HSNVLS 269.000] TO BUS 59296 [HSNVLW 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59292 ANCONDA269.0	0.9265	1.0047 Acceptable
59296 [HSNVLW 269.000] TO BUS 59297 [HSNVLS 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59293 HSNVLW 269.0	0.9263	1.0059 Acceptable
59297 [HSNVLS 269.000] TO BUS 59298 [HSNVL 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59290 BELTONS269.0	0.9496	0.9757 Upgrade
59298 [HSNVL 269.000] TO BUS 59299 [HSNVLW 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59291 FREEMAN269.0	0.9106	0.9876 Upgrade
59299 [HSNVLW 269.000] TO BUS 59300 [HSNVLS 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59292 ANCONDA269.0	0.9005	1.0047 Upgrade
59300 [HSNVLS 269.000] TO BUS 59301 [CLNTPLT269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59293 HSNVLW 269.0	0.8999	1.0059 Upgrade
59301 [CLNTPLT269.000] TO BUS 59304 [URICHTP269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59294 HSNVLS 269.0	0.8989	1.0092 Upgrade
59302 [URICHTP269.000] TO BUS 59303 [KAMOTP269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59256 KAMOTP 269.0	0.9208	0.9456 Acceptable
59303 [KAMOTP269.000] TO BUS 59304 [URICHTP269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59257 ELDRDO 269.0	0.9184	0.9433 Acceptable
59304 [URICHTP269.000] TO BUS 59305 [WALKER269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59258 WALKER 269.0	0.9424	0.9666 Acceptable
59305 [WALKER269.000] TO BUS 59306 [APCITY269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59259 DEDRCK 269.0	0.9294	0.9540 Acceptable
59306 [APCITY269.000] TO BUS 59307 [URICHTP269.000] CKT 1 VOLTAGE GREATER THAN 1.0500:		59304 URICHTP269.0	0.9397	1.0015 Acceptable
59307 [URICHTP269.000] TO BUS 59308 [NEVPLT 269.000] CKT 1 VOLTAGE GREATER THAN 1.0500:	VOLTAGE LESS THAN 0.9500:	59305 URICH 269.0	0.9361	0.9981 Acceptable
		59306 APCITY 269.0	0.9437	0.9948 Acceptable
		59310 3M 269.0	0.9447	0.9688 Acceptable
		59312 LAMAR 269.0	0.9358	0.9619 Acceptable
59308 [NEVPLT 269.000] TO BUS 59309 [METZ 269.000] CKT 1 VOLTAGE GREATER THAN 1.0500:		59159 NEVADA#113.2	1.0621	1.0059 LTC
		59308 NEVADA 269.0	1.0621	1.0059 LTC
		59304 URICHTP269.0	0.8622	1.0015 Switch
		59305 URICH 269.0	0.8582	0.9981 Switch
		59306 APCITY 269.0	0.7815	0.9948 Switch
		59307 NEVPLT 269.0	0.6330	1.0015 Switch
		59311 NEVJCT 269.0	0.6292	0.9992 Switch
		59312 LAMAR 269.0	0.5707	0.9619 Switch
		59159 NEVADA#113.2	1.1002	1.0059 LTC
		59307 NEVPLT 269.0	1.0942	1.0015 LTC
		59308 NEVADA 269.0	1.1002	1.0059 LTC
		59311 NEVJCT 269.0	1.0922	0.9992 LTC
		59312 LAMAR 269.0	1.0586	0.9619 LTC

VOLTAGE REPORT TABLE

OUTAGED BRANCH		VOLTAGE RANGE	(X--- BUS ---X)	V-CONT	V-INIT
59309 [METZ 269.000] TO BUS 59310 [3M 269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:		59159 NEVADA#113.2 59258 WALKER 269.0 59259 DEDRCK 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59311 NEVJCT 269.0	1.0805 1.0643 1.0529 1.0748 1.0805 1.0737 1.0728	1.0059 LTC 0.9666 LTC 0.9540 LTC 1.0015 LTC 1.0059 LTC 0.9772 LTC 0.9992 LTC
59217 [WINDSR 5161.00] TO BUS 96071 [5CLINTN 161.00] CKT 1 VOLTAGE LESS THAN 0.9500:			59209 SEDALIA5 161 59217 WINDSR 5 161 59241 SEDBEAST5 161 59241 SEDBEAST5 161 59159 NEVADA#113.2 59208 NEVADA 5 161 59228 WBURGE 5 161 59234 WAPB 5 161 59242 CLINTONS 161 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59268 WBURGP 269.0 59300 POSTOAK269.0 59301 CLNTPLT269.0 59302 CLNTGRN269.0 59303 CLINTON269.0 59304 URICHTP269.0 59305 URICH 269.0 59306 APCITY 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59310 3M 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.9412 0.9388 0.9464 0.9473 0.9209 0.9116 0.9347 0.9394 0.7093 0.8538 0.8512 0.8772 0.8632 0.9357 0.8269 0.7477 0.7454 0.7469 0.7742 0.7698 0.8051 0.9107 0.9209 0.8890 0.8798 0.9082 0.8665	0.9683 Acceptable 0.9898 Acceptable 0.9701 Acceptable 0.9701 Acceptable 1.0059 Accept Risk 0.9452 Accept Risk 0.9600 Accept Risk 0.9609 Accept Risk 1.0094 Accept Risk 0.9456 Accept Risk 0.9433 Accept Risk 0.9666 Accept Risk 0.9540 Accept Risk 1.0085 Accept Risk 1.0045 Accept Risk 1.0134 Accept Risk 1.0136 Accept Risk 1.0188 Accept Risk 1.0015 Accept Risk 0.9981 Accept Risk 0.9948 Accept Risk 1.0015 Accept Risk 1.0059 Accept Risk 0.9772 Accept Risk 0.9688 Accept Risk 0.9992 Accept Risk 0.9619 Accept Risk
59241 [SEDEAST5161.00] TO BUS 31409 [OVERTON 161.00] CKT 1 VOLTAGE LESS THAN 0.9500: 59242 [CLINTON5161.00] TO BUS 96071 [5CLINTN 161.00] CKT 1 VOLTAGE LESS THAN 0.9500:					
CONTINGENCY SPP-12					
59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500: 59216 [BUTLER_5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1 59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5161.00] CKT 1			59159 NEVADA#113.2 59208 NEVADA 5 161 59216 BUTLER_5 161 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59305 URICH 269.0 59306 APCITY 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59310 3M 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.9021 0.8609 0.8175 0.8333 0.8307 0.8573 0.8429 0.9499 0.9273 0.8887 0.9021 0.8694 0.8600 0.8962 0.8538	1.0059 Generation 0.9452 Generation 0.9692 Generation 0.9456 Generation 0.9433 Generation 0.9666 Generation 0.9540 Generation 0.9981 Generation 0.9948 Generation 1.0015 Generation 1.0059 Generation 0.9772 Generation 0.9688 Generation 0.9992 Generation 0.9619 Generation

VOLTAGE REPORT TABLE

2010 SUMMER PEAK - EMPIRE DISTRICT ELECTRIC - AREA 544

(	OUTAGED BRANCH	) (	VOLTAGE RANGE VOLTAGE LESS THAN 0.9500:	) (X--- BUS ---X)	V-CONT	V-INIT
BASE CASE				59404 PUR390 269.0 59416 CHE299T134.5 59417 CHE299 134.5 59418 CHE300 134.5 59419 TWN388 134.5 59420 WEL186 134.5 59473 RDS295 5 161 59474 O2D312 5 161 59475 BRN331 5 161 59482 HOL387 5 161 59488 BRN412 5 161 59489 BRN413 5 161 59492 RDS424 5 161 59495 GRT433 5 161 59497 RVS438 5 161 59417 CHE299 134.5 59417 CHE299 134.5 59416 CHE299T134.5 59417 CHE299 134.5 59418 CHE300 134.5 59419 TWN388 134.5 59436 CUPTAP 269.0 59437 CUPSUB 269.0 59425 HER209 269.0 59432 BUF243J269.0 59433 STRKAMO269.0 59434 BUF409 269.0 59493 BOL431 5 161 59547 BUF243 269.0 59572 FGC333 269.0 59575 BUF342 269.0 59587 STR370 269.0 59596 FRG397 269.0 59637 HUM308 134.5 59640 COL318 134.5 59691 WIL369 269.0 59425 HER209 269.0 59432 BUF243J269.0 59433 STRKAMO269.0 59434 BUF409 269.0 59528 BOL 73 269.0 59529 BED 80 269.0 59536 ASH121 269.0 59542 NIC170 269.0 59545 FRP217 269.0 59547 BUF243 269.0 59552 LAW260 269.0 59567 BRT323 269.0 59572 FGC333 269.0 59575 BUF342 269.0 59576 REP345 269.0	0.9410 0.8955 0.8909 0.8948 0.8938 0.8681 0.9343 0.9400 0.9380 0.9430 0.9380 0.9427 0.9318 0.9401 0.9464 0.9493 0.9495 0.9451 0.9408 0.9450 0.9448 0.9493 0.9487 0.9358 0.9311 0.9366 0.9204 0.9444 0.9309 0.9330 0.9292 0.9344 0.9360 0.9391 0.9166 0.9482 0.8473 0.8688 0.8978 0.8499 0.8776 0.9141 0.9445 0.9329 0.9229 0.8686 0.9496 0.8943 0.8714 0.8595 0.9316	0.9410 above .90 0.8955 provide solut. 0.8909 provide solut. 0.8948 provide solut. 0.8938 provide solut. 0.8681 provide solut. 0.9343 above .90 0.9400 above .90 0.9380 above .90 0.9430 above .90 0.9380 above .90 0.9427 above .90 0.9318 above .90 0.9401 above .90 0.9464 above .90 0.8909 above .90 0.8909 above .90 0.8955 above .90 0.8909 above .90 0.8948 above .90 0.8938 above .90 1.0076 above .90 1.0071 above .90 0.9912 above .90 0.9658 above .90 0.9611 above .90 0.9614 above .90 0.9757 above .90 0.9656 above .90 0.9656 above .90 0.9698 above .90 0.9615 above .90 0.9640 above .90 0.9719 above .90 0.9503 above .90 0.9708 above .90 0.9912 capacitor 69kv 0.9658 capacitor 69kv 0.9611 capacitor 69kv 0.9614 capacitor 69kv 1.0166 capacitor 69kv 0.9766 above .90 0.9797 above .90 0.9718 above .90 0.9995 above .90 0.9656 capacitor 69kv 0.9735 above .90 0.9921 capacitor 69kv 0.9656 capacitor 69kv 0.9698 capacitor 69kv 0.9586 above .90
59416 [CHE299T134.500] TO BUS 59418 [CHE300 134.500] CKT 1 VOLTAGE LESS THAN 0.9500: 59418 [CHE300 134.500] TO BUS 59419 [TWN388 134.500] CKT 1 VOLTAGE LESS THAN 0.9500: 59419 [TWN388 134.500] TO BUS 59420 [WEL186 134.500] CKT 1 VOLTAGE LESS THAN 0.9500:						
59436 [CUPTAP 269.000] TO BUS 59585 [DAD368 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:						
59464 [BOL 73 5161.00] TO BUS 59493 [BOL431 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:						
59464 [BOL 73 5161.00] TO BUS 59528 [BOL 73 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:						

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CUTAGED BRANCH	VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59468 [AUR124 5161.00] TO BUS 59473 [RDS295 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59580 REP359 269.0	0.9310	0.9516 above .90
59468 [AUR124 5161.00] TO BUS 59480 [MON383 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59584 BOL367 269.0	0.8817	1.0001 capacitor 69kv
59469 [RIV167 5161.00] TO BUS 59487 [HOC404 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59586 WIL445 269.0	0.9252	0.9734 above .90
59474 [OZD312 5161.00] TO BUS 59562 [OZD312 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59587 STR370 269.0	0.8893	0.9615 capacitor 69kv
59478 [DAD368 5161.00] TO BUS 59493 [BOL431 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59596 FRG397 269.0	0.8886	0.9640 capacitor 69kv
59478 [DAD368 5161.00] TO BUS 59585 [DAD368 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59612 BOL602 269.0	0.8852	0.9973 capacitor 69kv
59480 [MON383 5161.00] TO BUS 59591 [MON383 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59613 FRP217 134.5	0.9486	1.0213 above .90
		59637 HUM308 134.5	0.9201	0.9719 above .90
		59639 DUN283 134.5	0.9337	0.9960 above .90
		59640 COL318 134.5	0.8972	0.9503 provide solut.
		59691 WIL369 269.0	0.9225	0.9708 above .90
		59473 RDS295 5 161	0.9113	0.9343 above .90
		59424 RES364 269.0	0.9457	0.9666 above .90
		59468 AUR124 5 161	0.9359	0.9576 above .90
		59553 ALB262 269.0	0.9487	0.9695 above .90
		59577 MTV351 269.0	0.9472	0.9692 above .90
		59606 MTV420 269.0	0.9482	0.9704 above .90
		59416 CHE299T134.5	0.8656	0.8955 provide solut.
		59417 CHE299 134.5	0.8609	0.8909 provide solut.
		59418 CHB300 134.5	0.8650	0.8948 provide solut.
		59419 TWN388 134.5	0.8639	0.8938 provide solut.
		59420 WEL186 134.5	0.8372	0.8681 provide solut.
		59486 HOC404 4 138	0.9409	0.9765 above .90
		59487 HOC404 5 161	0.9352	0.9737 above .90
		59562 OZD312 269.0	0.9195	1.0123 above .90
		59603 FOR410 269.0	0.9195	1.0101 above .90
		59434 BUF409 269.0	0.9374	0.9614 above .90
		59575 BUF342 269.0	0.9460	0.9698 above .90
		59637 HUM308 134.5	0.9444	0.9719 above .90
		59640 COL318 134.5	0.9222	0.9503 above .90
		59436 CUPTAP 269.0	0.9490	1.0076 above .90
		59437 CUPSUB 269.0	0.9484	1.0071 above .90
		59536 ASH121 269.0	0.9444	0.9797 above .90
		59585 DAD368 269.0	0.9499	1.0135 above .90
		59586 WIL445 269.0	0.9446	0.9734 above .90
		59637 HUM308 134.5	0.9408	0.9719 above .90
		59640 COL318 134.5	0.9185	0.9503 above .90
		59691 WIL369 269.0	0.9419	0.9708 above .90
		59400 MON376J269.0	0.8835	0.9746 capacitor 69kv
		59401 MON376 269.0	0.8820	0.9732 capacitor 69kv
		59402 MON416J269.0	0.8763	0.9681 capacitor 69kv
		59403 MON416 269.0	0.8759	0.9677 capacitor 69kv
		59404 PUR390 269.0	0.8461	0.9410 capacitor 69kv
		59405 MON352J269.0	0.9106	0.9986 above .90
		59406 MON352 269.0	0.9104	0.9984 above .90
		59407 MON311J269.0	0.9089	0.9970 above .90
		59408 MON311 269.0	0.9087	0.9969 above .90
		59421 GNB347J269.0	0.9481	0.9756 above .90
		59422 GNB347 269.0	0.9340	0.9619 above .90
		59423 DIA242 269.0	0.9475	0.9750 above .90
		59430 SAR362 269.0	0.9235	0.9760 above .90
		59540 MON152 269.0	0.9181	1.0001 above .90
		59544 WEN205 269.0	0.9261	0.9861 above .90
		59582 SAR362T269.0	0.9309	0.9831 above .90
		59591 MON383 269.0	0.9160	1.0035 above .90

VOLTAGE REPORT TABLE

OUTAGED BRANCH

	VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59484 [DEC392 5161.00] TO BUS 59594 [DEC392 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59569 DEC326 269.0	0.9463	1.0020 above .90
59487 [HOC404 5161.00] TO BUS 59601 [HOC404 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59594 DEC392 269.0	0.9463	1.0056 above .90
		59409 SCAM66 269.0	0.9412	0.9776 above .90
		59410 COL282T269.0	0.9421	0.9785 above .90
		59411 COL282 269.0	0.9359	0.9725 above .90
		59412 SEK225T269.0	0.9399	0.9765 above .90
		59413 SEK225 269.0	0.9398	0.9763 above .90
		59414 SMN425 269.0	0.9381	0.9747 above .90
		59415 SHR444 269.0	0.9388	0.9754 above .90
		59416 CHE299T134.5	0.8411	0.8955 provide solut.
		59417 CHE299 134.5	0.8363	0.8909 provide solut.
		59418 CHE300 134.5	0.8404	0.8948 provide solut.
		59419 TWN388 134.5	0.8394	0.8938 provide solut.
		59420 WEL186 134.5	0.8122	0.8681 provide solut.
		59427 COM381 269.0	0.9382	0.9859 above .90
		59530 COL 94 269.0	0.9476	0.9838 above .90
		59579 COM381T269.0	0.9469	0.9941 above .90
		59590 QUA377 269.0	0.9459	0.9956 above .90
		59601 HOC404 269.0	0.9482	1.0008 above .90
		59636 BAX271 134.5	0.9485	0.9963 above .90
		59492 RDB424 5 161	0.9103	0.9318 above .90
		59489 BRN413 5 161	0.9213	0.9427 above .90
		59428 SWC414 269.0	0.9384	0.9761 above .90
		59524 NEO 56 269.0	0.9404	0.9781 above .90
		59432 BUF243J269.0	0.8896	0.9658 capacitor 69kv
		59433 STRKAMO269.0	0.9249	0.9611 above .90
		59434 BUF409 269.0	0.8636	0.9614 capacitor 69kv
		59547 BUF243 269.0	0.8894	0.9656 capacitor 69kv
		59572 PGC333 269.0	0.8937	0.9656 capacitor 69kv
		59575 BUF342 269.0	0.8731	0.9698 capacitor 69kv
		59587 STR370 269.0	0.9195	0.9615 above .90
		59596 FRG397 269.0	0.9199	0.9640 above .90
		59545 FRP217 269.0	0.9454	0.9995 above .90
		59584 BOL367 269.0	0.9131	1.0001 above .90
		59612 BOL602 269.0	0.9154	0.9973 above .90
		59637 HUM308 134.5	0.9361	0.9719 above .90
		59640 COL318 134.5	0.9136	0.9503 above .90
		59432 BUF243J269.0	0.9449	0.9658 above .90
		59433 STRKAMO269.0	0.9392	0.9611 above .90
		59547 BUF243 269.0	0.9447	0.9656 above .90
		59572 PGC333 269.0	0.9434	0.9656 above .90
		59587 STR370 269.0	0.9358	0.9615 above .90
		59596 FRG397 269.0	0.9368	0.9640 above .90
		59532 CAR108 269.0	0.9466	0.9780 above .90
		59599 JAS403 269.0	0.9462	0.9728 above .90
		59600 JAS403T269.0	0.9469	0.9734 above .90
		59536 ASH121 269.0	0.9407	0.9797 above .90
		59552 LAW260 269.0	0.9476	0.9735 above .90
		59586 WIL445 269.0	0.9432	0.9734 above .90
		59691 WIL369 269.0	0.9404	0.9708 above .90
		59586 WIL445 269.0	0.9458	0.9734 above .90
		59691 WIL369 269.0	0.9431	0.9708 above .90

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59537 [AUR124 269.000] TO BUS 59578 [AUR355 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59424 RES364 269.0	0.9320	0.9666 above .90
		59552 LAW260 269.0	0.9487	0.9735 above .90
		59553 ALB262 269.0	0.9351	0.9695 above .90
		59573 HTC338 269.0	0.9407	0.9711 above .90
		59577 MTV351 269.0	0.9197	0.9692 above .90
		59578 AUR355 269.0	0.9078	0.9855 above .90
		59606 MTV420 269.0	0.9183	0.9704 above .90
		59611 MAR437 269.0	0.9355	0.9736 above .90
		59421 GNB347J269.0	0.9108	0.9756 above .90
		59422 GNB347 269.0	0.8962	0.9619 capacitor 69kv
		59423 DIA242 269.0	0.9102	0.9750 above .90
		59430 SAR362 269.0	0.9319	0.9760 above .90
		59538 DIA131 269.0	0.9169	0.9814 above .90
		59544 WEN205 269.0	0.9499	0.9861 above .90
		59582 SAR362T269.0	0.9393	0.9831 above .90
		59416 CHE299T134.5	0.8705	0.8955 provide solut.
		59417 CHE299 134.5	0.8658	0.8909 provide solut.
		59418 CHE300 134.5	0.8699	0.8948 provide solut.
		59419 TWN388 134.5	0.8688	0.8938 provide solut.
		59420 WEL186 134.5	0.8425	0.8681 provide solut.
		59429 BAX291 269.0	0.9474	0.9824 above .90
		59576 REP345 269.0	0.9365	0.9586 above .90
		59560 ROC296 269.0	0.9377	0.9776 above .90
		59597 NEO398 269.0	0.9397	0.9776 above .90
		59426 SEN375 269.0	0.9304	0.9667 above .90
		59524 NEO 56 269.0	0.9063	0.9781 above .90
		59563 LIN314 269.0	0.9041	0.9812 above .90
		59589 RAC375 269.0	0.9467	0.9823 above .90
		59430 SAR362 269.0	0.9441	0.9760 above .90
		59635 FRP217 134.5	0.8416	1.0213 provide solut.
		59637 HUM308 134.5	0.8432	0.9719 provide solut.
		59639 DUN283 134.5	0.8417	0.9960 provide solut.
		59640 COL318 134.5	0.8178	0.9503 provide solut.
		59641 CAP304 134.5	0.9421	1.0105 above .90
		59542 NIC170 269.0	0.9399	0.9718 above .90
		59576 REP345 269.0	0.8957	0.9586 capacitor 69kv
		59580 REP359 269.0	0.8731	0.9516 capacitor 69kv
		59411 COL282 269.0	0.9463	0.9725 above .90
		59414 SMN425 269.0	0.9485	0.9747 above .90
		59415 SHR444 269.0	0.9492	0.9754 above .90
		59416 CHE299T134.5	0.8565	0.8955 provide solut.
		59417 CHE299 134.5	0.8518	0.8909 provide solut.
		59418 CHE300 134.5	0.8558	0.8948 provide solut.
		59419 TWN388 134.5	0.8548	0.8938 provide solut.
		59420 WEL186 134.5	0.8281	0.8681 provide solut.
		59561 NOL443 269.0	0.9400	0.9875 above .90
		59566 AND322 269.0	0.9474	0.9822 above .90
		59603 FOR410 269.0	0.9196	1.0101 above .90
		59568 STK324 269.0	0.9064	0.9981 above .90
		59637 HUM308 134.5	0.9314	0.9719 above .90
		59638 STK324 134.5	0.9307	1.0317 above .90
		59640 COL318 134.5	0.9096	0.9503 above .90
		59641 CAP304 134.5	0.9306	1.0105 above .90

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X---- BUS ---X)	V-CONT	V-INIT
59568 [STK324 269.000] TO BUS 59638 [STK324 134.500] CKT 1 VOLTAGE LESS THAN 0.9500:		59637 HUM308 134.5 59638 STK324 134.5 59640 COL318 134.5 59641 CAP304 134.5	0.9254 0.9236 0.9027 0.9235	0.9719 above .90 1.0317 above .90 0.9503 above .90 1.0105 above .90
59569 [DEC326 269.000] TO BUS 59594 [DEC392 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59569 DEC326 269.0	0.9461	1.0020 above .90
59570 [OZK330 269.000] TO BUS 59604 [BHJ415 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59570 OZK330 269.0 59609 OZK434 269.0	0.8515 0.8567	0.9824 provide solut 0.9791 provide solut
59570 [OZK330 269.000] TO BUS 59609 [OZK434 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59609 OZK434 269.0	0.9372	0.9791 above .90
59577 [MTV351 269.000] TO BUS 59606 [MTV420 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59577 MTV351 269.0	0.9482	0.9692 above .90
59578 [AUR355 269.000] TO BUS 59606 [MTV420 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59577 MTV351 269.0 59606 MTV420 269.0	0.9409 0.9406	0.9692 above .90 0.9704 above .90
59587 [STR370 269.000] TO BUS 59596 [FRG397 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59433 STRKAMO269.0 59587 STR370 269.0	0.9172 0.9107	0.9611 above .90 0.9615 above .90
59589 [RAC375 269.000] TO BUS 59592 [JOP389 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59426 SEN375 269.0	0.9370	0.9667 above .90
59590 [QUA377 269.000] TO BUS 59601 [HOC404 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59427 COM381 269.0 59579 COM381T269.0	0.8938 0.9028	0.9859 capacitor 69kv 0.9941 above .90
59598 [LKW400 269.000] TO BUS 59613 [GRN614 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59590 QUA377 269.0 59548 BOS249 269.0 59550 GLD251 269.0	0.9000 0.9474 0.9390	0.9956 capacitor 69kv 0.9737 above .90 0.9739 above .90
59605 [STK410 269.000] TO BUS 59614 [SK631CJ269.000] CKT 1 VOLTAGE LESS THAN 0.9500:		59598 LKW400 269.0 59548 BOS249 269.0 59549 ARC250 269.0	0.9340 0.9409 0.9151	0.9778 above .90 0.9737 above .90 0.9908 above .90
		59550 GLD251 269.0 59568 STK324 269.0	0.9313 0.9052	0.9739 above .90 0.9981 above .90
		59598 LKW400 269.0 59613 GRN614 269.0	0.9259 0.9257	0.9778 above .90 0.9830 above .90
		59614 SK631CJ269.0 59616 STK631J269.0	0.9044 0.9053	0.9989 above .90 0.9982 above .90
		59637 HUM308 134.5 59638 STK324 134.5	0.9266 0.9380	0.9719 above .90 1.0317 above .90
		59640 COL318 134.5 59641 CAP304 134.5	0.8167 0.9415	0.9503 above .90 1.0105 above .90
59635 [FRP217 134.500] TO BUS 59639 [DUN283 134.500] CKT 1 VOLTAGE GREATER THAN 1.0500: VOLTAGE LESS THAN 0.9500:		59635 FRP217 134.5 59637 HUM308 134.5 59639 DUN283 134.5	1.0589 0.8421 0.8405	1.0213 above .90 0.9719 provide solut. 0.9960 provide solut.
59637 [HUM308 134.500] TO BUS 59639 [DUN283 134.500] CKT 1 VOLTAGE GREATER THAN 1.0500: VOLTAGE LESS THAN 0.9500:		59640 COL318 134.5 59641 CAP304 134.5	0.8167 0.9415	0.9503 provide solut. 1.0105 above .90
59637 [HUM308 134.500] TO BUS 59641 [CAP304 134.500] CKT 1 VOLTAGE LESS THAN 0.9500:		59635 FRP217 134.5 59637 HUM308 134.5 59639 DUN283 134.5	1.0591 0.8491 1.0580	1.0213 above .90 0.9719 provide solut. 0.9960 above .90
59638 [STK324 134.500] TO BUS 59641 [CAP304 134.500] CKT 1 VOLTAGE LESS THAN 0.9500:		59640 COL318 134.5 59641 CAP304 134.5	0.8239 0.9446	0.9503 provide solut. 1.0105 above .90
59484 [DEC392 5161.00] TO BUS 53139 [PLINTCR5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:		59637 HUM308 134.5 59640 COL318 134.5 59641 CAP304 134.5 59642 SWC414 269.0 59484 DEC392 5 161 59496 NOL435 5 161 59561 NOL443 269.0 59566 AND322 269.0 59569 DEC326 269.0	0.9322 0.9104 0.9305 0.9087 0.9291 0.9247 0.9386 0.9429 0.9395 0.9429 0.9297	0.9719 above .90 0.9503 above .90 0.9719 above .90 0.9503 above .90 1.0105 above .90 0.9761 above .90 1.0164 above .90 0.9928 above .90 0.9875 above .90 0.9822 above .90 1.0020 above .90

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VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59497 [RVS438 5161.00] TO BUS 52672 [TABLE R5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:		59610 NOL435 269.0 59617 GRA700 269.0 59473 RDS295 5 161 59474 OZD312 5 161 59475 BRN331 5 161 59482 HOL387 5 161 59488 BRN412 5 161 59489 BRN413 5 161 59492 RDS424 5 161 59495 GRT433 5 161 59497 RVS438 5 161 59648 O2D312 14 .60	0.9406 0.9276 0.8959 0.8864 0.8846 0.8844 0.8847 0.8828 0.8906 0.8835 0.8830 0.9106	0.9912 above .90 0.9939 above .90 0.9343 provide solut. 0.9400 provide solut. 0.9380 provide solut. 0.9430 provide solut. 0.9380 provide solut. 0.9427 provide solut. 0.9318 provide solut. 0.9401 provide solut. 0.9464 provide solut. 0.9633 above .90
59605 [STK418 269.000] TO BUS 96118 [5STKAEC 161.00] CKT 1 VOLTAGE LESS THAN 0.9500:		59548 B08249 269.0 59549 ARC250 269.0 59550 GLD251 269.0 59568 STK324 269.0 59598 LKW400 269.0 59605 STK418 269.0 59613 GRN614 269.0 59614 SK631CJ269.0 59616 STK631J269.0 59637 HUM308 134.5 59638 STK324 134.5 59640 COL318 134.5 59641 CAP304 134.5	0.9410 0.9152 0.9313 0.9054 0.9260 0.9046 0.9258 0.9046 0.9055 0.9268 0.9381 0.9046 0.9342	0.9737 above .90 0.9908 above .90 0.9739 above .90 0.9981 above .90 0.9778 above .90 1.0005 above .90 0.9830 above .90 0.9989 above .90 0.9982 above .90 0.9719 above .90 1.0317 above .90 0.9503 above .90 1.0105 above .90
CONTINGENCY SPP-12		59434 BUP409 269.0 59478 DAD368 5 161 59637 HUM308 134.5 59640 COL318 134.5	0.9414 0.9423 0.9399 0.9175	0.9614 above .90 0.9626 above .90 0.9719 above .90 0.9503 above .90
59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:		69704 EAST 5 161	0.9482	0.9990 Acceptable
59216 [BUTLER_5161.00] TO BUS 59240 [ADRIAN 5161.00] CKT 1		69708 WOODBINS 161	0.9480	1.0028 Acceptable
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5161.00] CKT 1				
2010 SUMMER PEAK - ST. JOSEPH LIGHT AND POWER - AREA 679				
69703 [ST JOR 5161.00] TO BUS 69708 [WOODBINS5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:				

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X--- BUS ---X)	V-CONT	V-INIT
59208 [NEVADA 5161.00] TO BUS 59308 [NEVADA 269.000]	CKT 2 VOLTAGE LESS THAN 0.9500:	59159 NEVADA#113.2 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59310 3M 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.9450 0.8801 0.8776 0.9027 0.8892 0.9413 0.9450 0.9141 0.9052 0.9389 0.8989	1.0059 Generation 0.9456 Generation 0.9433 Generation 0.9666 Generation 0.9540 Generation 1.0015 Generation 1.0059 Generation 0.9772 Generation 0.9688 Generation 0.9992 Generation 0.9619 Generation
59209 [SEDALIA5161.00] TO BUS 59217 [WINDSR 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59209 SEDALIA5 161 59241 SEDBAST5 161	0.9437 0.9486	0.9683 Acceptable 0.9701 Acceptable
59210 [MARTCTY5161.00] TO BUS 59287 [MARTCTY269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59286 GRDWST 269.0 59287 MARTCTY269.0 59288 RGAFB 269.0 59289 BELTON 269.0 59290 BELTONS269.0	0.9487 0.9487 0.9465 0.9455 0.9450	1.0100 Acceptable 1.0189 Acceptable 0.9844 Acceptable 0.9805 Acceptable 0.9757 Acceptable
59216 [BUTLER_5161.00] TO BUS 59240 [ADRIAN 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59159 NEVADA#113.2 59208 NEVADA 5 161 59216 BUTLER_5 161 59256 KAMOTP 269.0 59257 ELDRDO 269.0 59258 WALKER 269.0 59259 DEDRCK 269.0 59305 URICH 269.0 59306 APCITY 269.0 59307 NEVPLT 269.0 59308 NEVADA 269.0 59309 METZ 269.0 59310 3M 269.0 59311 NEVJCT 269.0 59312 LAMAR 269.0	0.8986 0.8569 0.8515 0.8298 0.8272 0.8538 0.8394 0.9493 0.9260 0.8953 0.8986 0.8659 0.8565 0.8927 0.8504	1.0059 Not Valid 0.9452 Not Valid 0.9692 Not Valid 0.9456 Not Valid 0.9433 Not Valid 0.9666 Not Valid 0.9540 Not Valid 0.9981 Not Valid 0.9948 Not Valid 1.0015 Not Valid 1.0059 Not Valid 0.9772 Not Valid 0.9688 Not Valid 0.9992 Not Valid 0.9619 Not Valid
59225 [PHILL 5161.00] TO BUS 59280 [PHILL 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59290 BELTONS269.0	0.9467	0.9757 Upgrade
59228 [WBURGE 5161.00] TO BUS 59229 [ODESSA 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59228 WBURGE 5 161 59234 WAFF 5 161	0.9299 0.9347	0.9600 Acceptable 0.9609 Acceptable
59229 [ODESSA 5161.00] TO BUS 59267 [ODESSA 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59267 ODESSA 269.0	0.9285	1.0147 Acceptable
59239 [HSNVL 5161.00] TO BUS 59295 [HSNVL 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59289 BELTON 269.0 59290 BELTONS269.0 59291 FREEMAN269.0 59292 ANCONDA269.0 59293 HSNVLW 269.0 59294 HSNVLS 269.0 59295 HSNVL 269.0 59296 HSNVLSW269.0 59297 HSNVLN 269.0 59298 GRDNCTY269.0 59299 SNCLRPS269.0	0.9499 0.9416 0.9195 0.9183 0.9184 0.9188 0.9205 0.9221 0.9263 0.9185 0.9185	0.9805 Acceptable 0.9757 Acceptable 0.9876 Acceptable 1.0047 Acceptable 1.0059 Acceptable 1.0092 Acceptable 1.0148 Acceptable 1.0104 Acceptable 1.0053 Acceptable 1.0071 Acceptable 1.0071 Acceptable
59261 [LBRTYWT269.000] TO BUS 59262 [LIBERTY269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59261 LBRTYWT269.0	1.0596	1.0139 LTC
59269 [WBURGE 269.000] TO BUS 59270 [KNOSTER269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59270 KNOSTER269.0	0.9483	0.9997 Acceptable

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59280 [PHILL 269.000] TO BUS 59290 [BELTONS269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59288 RGAFB 269.0 0.9178 59289 BELTON 269.0 0.9093 59290 BELTONS269.0 0.8969 59291 FREEMAN269.0 0.9381	0.9844 Upgrade 0.9805 Upgrade 0.9757 Upgrade 0.9876 Upgrade	0.9844 Upgrade 0.9805 Upgrade 0.9757 Upgrade 0.9876 Upgrade
59284 [GRDVWTP269.000] TO BUS 59285 [GRDWCTY269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59287 MARTCTY269.0 1.0558	1.0189 LTC	1.0189 LTC
59284 [GRDVWTP269.000] TO BUS 59288 [RGAFB 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59288 RGAFB 269.0 0.9139 59289 BELTON 269.0 0.9147 59290 BELTONS269.0 0.9174 59291 FREEMAN269.0 0.9478	0.9844 Acceptable 0.9805 Acceptable 0.9757 Acceptable 0.9876 Acceptable	0.9844 Acceptable 0.9805 Acceptable 0.9757 Acceptable 0.9876 Acceptable
59285 [GRDWCTY269.000] TO BUS 59286 [GRDWST 269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59286 GRDWST 269.0 1.0723 59287 MARTCTY269.0 1.0761	1.0100 LTC 1.0189 LTC	1.0100 LTC 1.0189 LTC
59286 [GRDWST 269.000] TO BUS 59287 [MARTCTY269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59287 MARTCTY269.0 1.1039	1.0189 LTC	1.0189 LTC
	VOLTAGE LESS THAN 0.9500:	59286 GRDWST 269.0 0.9486 59288 RGAFB 269.0 0.9464 59289 BELTON 269.0 0.9454 59290 BELTONS269.0 0.9449	1.0100 Acceptable 0.9844 Acceptable 0.9805 Acceptable 0.9757 Acceptable	1.0100 Acceptable 0.9844 Acceptable 0.9805 Acceptable 0.9757 Acceptable
59288 [RGAFB 269.000] TO BUS 59289 [BELTON 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59289 BELTON 269.0 0.9290 59290 BELTONS269.0 0.9303	0.9805 Acceptable 0.9757 Acceptable	0.9805 Acceptable 0.9757 Acceptable
59289 [BELTON 269.000] TO BUS 59290 [BELTONS269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59290 BELTONS269.0 0.9429	0.9757 Acceptable	0.9757 Acceptable
59291 [FREEMAN269.000] TO BUS 59292 [ANCONDA269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59291 FREEMAN269.0 0.9402	0.9876 Acceptable	0.9876 Acceptable
59292 [ANCONDA269.000] TO BUS 59293 [HSNVLW 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59291 FREEMAN269.0 0.9392 59292 ANCONDA269.0 0.9386	0.9876 Acceptable 1.0047 Acceptable	0.9876 Acceptable 1.0047 Acceptable
59293 [HSNVLW 269.000] TO BUS 59294 [HSNVLS 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59291 FREEMAN269.0 0.9301 59292 ANCONDA269.0 0.9265 59293 HSNVLW 269.0 0.9263	0.9876 Acceptable 1.0047 Acceptable 1.0059 Acceptable	0.9876 Acceptable 1.0047 Acceptable 1.0059 Acceptable
59294 [HSNVLS 269.000] TO BUS 59295 [HSNVL 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59290 BELTONS269.0 0.9496 59291 FREEMAN269.0 0.9106 59292 ANCONDA269.0 0.9005 59293 HSNVLW 269.0 0.8999	0.9757 Upgrade 0.9876 Upgrade 1.0047 Upgrade 1.0059 Upgrade	0.9757 Upgrade 0.9876 Upgrade 1.0047 Upgrade 1.0059 Upgrade
59294 [HSNVLS 269.000] TO BUS 59295 [HSNVL 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59294 HSNVLS 269.0 0.8989	1.0092 Upgrade	1.0092 Upgrade
59301 [CLNTPLT269.000] TO BUS 59304 [URICHTP269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59256 KAMOTP 269.0 0.9208 59257 ELDORDO 269.0 0.9184 59258 WALKER 269.0 0.9424 59259 DEDRCK 269.0 0.9294 59304 URICHTP269.0 0.9397 59305 URICH 269.0 0.9361 59306 APCITY 269.0 0.9437 59310 3M 269.0 0.9447 59312 LAMAR 269.0 0.9358	0.9456 Acceptable 0.9433 Acceptable 0.9666 Acceptable 0.9540 Acceptable 1.0015 Acceptable 0.9981 Acceptable 0.9948 Acceptable 0.9688 Acceptable 0.9619 Acceptable	0.9456 Acceptable 0.9433 Acceptable 0.9666 Acceptable 0.9540 Acceptable 1.0015 Acceptable 0.9981 Acceptable 0.9948 Acceptable 0.9688 Acceptable 0.9619 Acceptable
59307 [NEVPLT 269.000] TO BUS 59308 [NEVADA 269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59159 NEVADA#113.2 1.0621 59308 NEVADA 269.0 1.0621	1.0059 LTC 1.0059 LTC	1.0059 LTC 1.0059 LTC
	VOLTAGE LESS THAN 0.9500:	59304 URICHTP269.0 0.8622 59305 URICH 269.0 0.8582 59306 APCITY 269.0 0.7815 59307 NEVPLT 269.0 0.6330 59311 NEVJCT 269.0 0.6292 59312 LAMAR 269.0 0.5707	1.0015 Switch 0.9981 Switch 0.9948 Switch 1.0015 Switch 0.9992 Switch 0.9619 Switch	1.0015 Switch 0.9981 Switch 0.9948 Switch 1.0015 Switch 0.9992 Switch 0.9619 Switch
59308 [NEVADA 269.000] TO BUS 59309 [METZ 269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59159 NEVADA#113.2 1.1002 59307 NEVPLT 269.0 1.0942 59308 NEVADA 269.0 1.1002 59311 NEVJCT 269.0 1.0922 59312 LAMAR 269.0 1.0586	1.0059 LTC 1.0015 LTC 1.0059 LTC 0.9992 LTC 0.9619 LTC	1.0059 LTC 1.0015 LTC 1.0059 LTC 0.9992 LTC 0.9619 LTC

VOLTAGE REPORT TABLE

(OUTAGED BRANCH) (VOLTAGE RANGE) (X---- BUS ----X)	V-CONT	V-INIT
59309 [METZ 269.000] TO BUS 59310 [3M 269.000]	CKT 1 VOLTAGE GREATER THAN 1.0500:	59159 NEVADA#113.2 1.0805	1.0059 LTC			
		59258 WALKER 269.0 1.0643	0.9666 LTC			
		59259 DEDRCK 269.0 1.0529	0.9540 LTC			
		59307 NEVPLT 269.0 1.0748	1.0015 LTC			
		59308 NEVADA 269.0 1.0805	1.0059 LTC			
		59309 METZ 269.0 1.0737	0.9772 LTC			
		59311 NEVJCT 269.0 1.0728	0.9992 LTC			
59217 [WINDSR 5161.00] TO BUS 96071 [5CLINTN 161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59209 SEDALIA5 161 0.9412	0.9683 Acceptable			
		59217 WINDSR 5 161 0.9388	0.9898 Acceptable			
		59241 SEDEAST5 161 0.9464	0.9701 Acceptable			
59241 [SEDEAST5161.00] TO BUS 31409 [OVERTON 161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59241 SEDEASTS 161 0.9473	0.9701 Acceptable			
59242 [CLINTON5161.00] TO BUS 96071 [5CLINTN 161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59159 NEVADA#113.2 0.9209	1.0059 Accept Risk			
		59208 NEVADA 5 161 0.9116	0.9452 Accept Risk			
		59228 WBURGE 5 161 0.9347	0.9600 Accept Risk			
		59234 WAFB 5 161 0.9394	0.9609 Accept Risk			
		59242 CLINTONS 161 0.7093	1.0094 Accept Risk			
		59256 KAMOTP 269.0 0.8538	0.9456 Accept Risk			
		59257 ELDRDO 269.0 0.8512	0.9433 Accept Risk			
		59258 WALKER 269.0 0.8772	0.9666 Accept Risk			
		59259 DEDRCK 269.0 0.8632	0.9540 Accept Risk			
		59268 WBURGP 269.0 0.9357	1.0085 Accept Risk			
		59300 POBTOAK269.0 0.8269	1.0045 Accept Risk			
		59301 CLNTPLT269.0 0.7477	1.0134 Accept Risk			
		59302 CLNTGRN269.0 0.7454	1.0136 Accept Risk			
		59303 CLINTON269.0 0.7469	1.0188 Accept Risk			
		59304 URICHTP269.0 0.7742	1.0015 Accept Risk			
		59305 URICH 269.0 0.7698	0.9981 Accept Risk			
		59306 APCITY 269.0 0.8051	0.9948 Accept Risk			
		59307 NEVPLT 269.0 0.9107	1.0015 Accept Risk			
		59308 NEVADA 269.0 0.9209	1.0059 Accept Risk			
		59309 METZ 269.0 0.8890	0.9772 Accept Risk			
		59310 3M 269.0 0.8798	0.9688 Accept Risk			
		59311 NEVJCT 269.0 0.9082	0.9992 Accept Risk			
		59312 LAMAR 269.0 0.8665	0.9619 Accept Risk			
CONTINGENCY SPP-12						
59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59159 NEVADA#113.2 0.9021	1.0059 Generation			
59216 [BUTLER_5161.00] TO BUS 59240 [ADRIAN 5161.00]	CKT 1	59208 NEVADA 5 161 0.8609	0.9452 Generation			
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5161.00]	CKT 1	59216 BUTLER_5 161 0.8175	0.9692 Generation			
		59256 KAMOTP 269.0 0.8333	0.9456 Generation			
		59257 ELDRDO 269.0 0.8307	0.9433 Generation			
		59258 WALKER 269.0 0.8573	0.9666 Generation			
		59259 DEDRCK 269.0 0.8429	0.9540 Generation			
		59305 URICH 269.0 0.9499	0.9981 Generation			
		59306 APCITY 269.0 0.9273	0.9948 Generation			
		59307 NEVPLT 269.0 0.8987	1.0015 Generation			
		59308 NEVADA 269.0 0.9021	1.0059 Generation			
		59309 METZ 269.0 0.8694	0.9772 Generation			
		59310 3M 269.0 0.8600	0.9688 Generation			
		59311 NEVJCT 269.0 0.8962	0.9992 Generation			
		59312 LAMAR 269.0 0.8538	0.9619 Generation			

OUTAGED BRANCH	VOLTAGE RANGE	I (X---- BUS ----X)	V-CONT	V-INIT
		59580 REP359 269.0	0.9310	0.9516 above .90
		59584 BOL367 269.0	0.8817	1.0001 capacitor 69kv
		59586 WIL445 269.0	0.9252	0.9734 above .90
		59587 STR370 269.0	0.8893	0.9615 capacitor 69kv
		59596 FRG397 269.0	0.8886	0.9640 capacitor 69kv
		59612 BOL602 269.0	0.8852	0.9973 capacitor 69kv
		59635 FRP217 134.5	0.9486	1.0213 above .90
		59637 HUM308 134.5	0.9201	0.9719 above .90
		59639 DUN283 134.5	0.9337	0.9960 above .90
		59640 COL318 134.5	0.8972	0.9503 provide solut.
		59691 WIL369 269.0	0.9225	0.9708 above .90
59468 [AUR124 5161.00] TO BUS 59473 [RDS295 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59473 RDS295 5 161	0.9113	0.9343 above .90	
59468 [AUR124 5161.00] TO BUS 59480 [MON383 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59424 RES364 269.0	0.9457	0.9666 above .90	
		59468 AUR124 5 161	0.9359	0.9576 above .90
		59553 ALB262 269.0	0.9487	0.9695 above .90
		59577 MTV351 269.0	0.9472	0.9692 above .90
		59606 MTV420 269.0	0.9482	0.9704 above .90
59469 [RIV167 5161.00] TO BUS 59487 [HOC404 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59416 CHE299T134.5	0.8656	0.8955 provide solut.	
		59417 CHE299 134.5	0.8609	0.8909 provide solut.
		59418 CHE300 134.5	0.8650	0.8948 provide solut.
		59419 TWN388 134.5	0.8639	0.8938 provide solut.
		59420 WELL86 134.5	0.8372	0.8681 provide solut.
		59486 HOC404 4 138	0.9409	0.9765 above .90
		59487 HOC404 5 161	0.9352	0.9737 above .90
59474 [OZD312 5161.00] TO BUS 59562 [OZD312 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59562 OZD312 269.0	0.9195	1.0123 above .90	
		59603 FOR410 269.0	0.9195	1.0101 above .90
59478 [DAD368 5161.00] TO BUS 59493 [BOL431 5161.00] CKT 1 VOLTAGE LESS THAN 0.9500:	59434 BUF409 269.0	0.9374	0.9614 above .90	
		59575 BUF342 269.0	0.9460	0.9698 above .90
		59637 HUM308 134.5	0.9444	0.9719 above .90
		59640 COL318 134.5	0.9222	0.9503 above .90
59476 [DAD368 5161.00] TO BUS 59585 [DAD368 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59436 CUPTAP 269.0	0.9490	1.0076 above .90	
		59437 CUPSUB 269.0	0.9484	1.0071 above .90
		59536 ASH121 269.0	0.9444	0.9797 above .90
		59585 DAD368 269.0	0.9499	1.0135 above .90
		59586 WIL445 269.0	0.9446	0.9734 above .90
		59637 HUM308 134.5	0.9408	0.9719 above .90
		59640 COL318 134.5	0.9185	0.9503 above .90
		59691 WIL369 269.0	0.9419	0.9708 above .90
59480 [MON383 5161.00] TO BUS 59591 [MON383 269.000] CKT 1 VOLTAGE LESS THAN 0.9500:	59400 MON376J269.0	0.8835	0.9746 capacitor 69kv	
		59401 MON376 269.0	0.8820	0.9732 capacitor 69kv
		59402 MON416J269.0	0.8763	0.9681 capacitor 69kv
		59403 MON416 269.0	0.8759	0.9677 capacitor 69kv
		59404 PUR390 269.0	0.8461	0.9410 capacitor 69kv
		59405 MON352J269.0	0.9106	0.9986 above .90
		59406 MON352 269.0	0.9104	0.9984 above .90
		59407 MON311J269.0	0.9089	0.9970 above .90
		59408 MON311 269.0	0.9087	0.9969 above .90
		59421 GNB347J269.0	0.9481	0.9756 above .90
		59422 GNB347 269.0	0.9340	0.9619 above .90
		59423 DIA242 269.0	0.9475	0.9750 above .90
		59430 BAR362 269.0	0.9235	0.9760 above .90
		59540 MON152 269.0	0.9181	1.0001 above .90
		59544 WEN205 269.0	0.9261	0.9861 above .90
		59582 SAR362T269.0	0.9309	0.9831 above .90
		59591 MON383 269.0	0.9160	1.0035 above .90

VOLTAGE REPORT TABLE

(OUTAGED BRANCH) (VOLTAGE RANGE) (X--- BUS ---X)	V-CONT	V-INIT
59484	[DEC392 5161.00] TO BUS 59594 [DEC392 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59569 DEC326 269.0	0.9463	1.0020 above .90	
			59594 DEC392 269.0	0.9463	1.0056 above .90	
59487	[HOC404 5161.00] TO BUS 59601 [HOC404 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59409 SCAM66 269.0	0.9412	0.9776 above .90	
			59410 COL282T269.0	0.9421	0.9785 above .90	
			59411 COL282 269.0	0.9359	0.9725 above .90	
			59412 SEK225T269.0	0.9399	0.9765 above .90	
			59413 SEK225 269.0	0.9398	0.9763 above .90	
			59414 SMN425 269.0	0.9381	0.9747 above .90	
			59415 SHR444 269.0	0.9388	0.9754 above .90	
			59416 CHE299T134.5	0.8411	0.8955 provide solut.	
			59417 CHE299 134.5	0.8363	0.8909 provide solut.	
			59418 CHE300 134.5	0.8404	0.8948 provide solut.	
			59419 TWN388 134.5	0.8394	0.8938 provide solut.	
			59420 WEL186 134.5	0.8122	0.8681 provide solut.	
			59427 COM381 269.0	0.9382	0.9859 above .90	
			59530 COL 94 269.0	0.9476	0.9838 above .90	
			59579 COM381T269.0	0.9469	0.9941 above .90	
			59590 QUA377 269.0	0.9459	0.9956 above .90	
			59601 HOC404 269.0	0.9482	1.0008 above .90	
			59636 BAX271 134.5	0.9485	0.9963 above .90	
59488	[BRN412 5161.00] TO BUS 59492 [RDS424 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59492 RDS424 5 161	0.9103	0.9318 above .90	
59489	[BRN413 5161.00] TO BUS 59497 [RVS438 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59489 BRN413 5 161	0.9213	0.9427 above .90	
59496	[NOL435 5161.00] TO BUS 59610 [NOL435 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59428 SWC414 269.0	0.9384	0.9761 above .90	
59524	[NEO 56 269.000] TO BUS 59563 [LIN314 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59524 NEO 56 269.0	0.9404	0.9781 above .90	
59528	[BOL 73 269.000] TO BUS 59575 [BUF342 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59432 BUF243J269.0	0.8896	0.9658 capacitor 69kv	
			59433 STRKAMO269.0	0.9249	0.9611 above .90	
			59434 BUF409 269.0	0.8636	0.9614 capacitor 69kv	
			59547 BUF243 269.0	0.8894	0.9656 capacitor 69kv	
			59572 FGC333 269.0	0.8937	0.9656 capacitor 69kv	
			59575 BUF342 269.0	0.8731	0.9698 capacitor 69kv	
			59587 STR370 269.0	0.9195	0.9615 above .90	
			59596 FRG397 269.0	0.9199	0.9640 above .90	
59528	[BOL 73 269.000] TO BUS 59584 [BOL367 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59545 FRP217 269.0	0.9454	0.9995 above .90	
			59584 BOL367 269.0	0.9131	1.0001 above .90	
			59612 BOL602 269.0	0.9154	0.9973 above .90	
			59637 HUM308 134.5	0.9361	0.9719 above .90	
			59640 COL318 134.5	0.9136	0.9503 above .90	
59529	[SED 80 269.000] TO BUS 59596 [FRG397 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59432 BUF243J269.0	0.9449	0.9658 above .90	
			59433 STRKAMO269.0	0.9392	0.9611 above .90	
			59547 BUF243 269.0	0.9447	0.9656 above .90	
			59572 FGC333 269.0	0.9434	0.9656 above .90	
			59587 STR370 269.0	0.9358	0.9615 above .90	
			59596 FRG397 269.0	0.9368	0.9640 above .90	
59532	[CAR108 269.000] TO BUS 59533 [ATL109 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59532 CAR108 269.0	0.9466	0.9780 above .90	
			59599 JAS403 269.0	0.9462	0.9728 above .90	
			59600 JAS403T269.0	0.9469	0.9734 above .90	
59536	[ASH121 269.000] TO BUS 59585 [DAD368 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59536 ASH121 269.0	0.9407	0.9797 above .90	
			59552 LAW260 269.0	0.9476	0.9735 above .90	
			59586 WIL445 269.0	0.9432	0.9734 above .90	
			59691 WIL369 269.0	0.9404	0.9708 above .90	
59536	[ASH121 269.000] TO BUS 59586 [WIL445 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59586 WIL445 269.0	0.9458	0.9734 above .90	
			59691 WIL369 269.0	0.9431	0.9708 above .90	

VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X--- BUS ---X)	V-CONT	V-INIT
59537 [AUR124 269.000] TO BUS 59578 [AUR355 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59424 RES364 269.0 0.9320 59552 LAW260 269.0 0.9487	0.9666 above .90 0.9735 above .90	
		59553 ALB262 269.0 0.9351	0.9695 above .90	
		59573 HTC338 269.0 0.9407	0.9711 above .90	
		59577 MTV351 269.0 0.9197	0.9692 above .90	
		59578 AUR355 269.0 0.9078	0.9855 above .90	
		59606 MTV420 269.0 0.9183	0.9704 above .90	
59537 [AUR124 269.000] TO BUS 59611 [MAR437 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59611 MAR437 269.0 0.9355	0.9736 above .90	
59538 [DIA131 269.000] TO BUS 59595 [RNM393 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59421 GNB347J269.0 0.9108 59422 GNB347 269.0 0.8962	0.9756 above .90 0.9619 capacitor 69kv	
		59423 DIA242 269.0 0.9102	0.9750 above .90	
		59430 SAR362 269.0 0.9319	0.9760 above .90	
		59538 DIA131 269.0 0.9169	0.9814 above .90	
		59544 WEN205 269.0 0.9499	0.9861 above .90	
		59582 SAR362T269.0 0.9393	0.9831 above .90	
59541 [RIV167 269.000] TO BUS 59602 [RIV406 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59416 CHE299T134.5 0.8705 59417 CHE299 134.5 0.8658	0.8955 provide solut. 0.8909 provide solut.	
		59418 CHE300 134.5 0.8699	0.8948 provide solut.	
		59419 TWN388 134.5 0.8688	0.8938 provide solut.	
		59420 WEL186 134.5 0.8425	0.8681 provide solut.	
		59429 BAX291 269.0 0.9474	0.9824 above .90	
59542 [NIC170 269.000] TO BUS 59576 [REP345 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59576 REP345 269.0 0.9365	0.9586 above .90	
59543 [NEO184 269.000] TO BUS 59560 [ROC296 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59560 ROC296 269.0 0.9377	0.9776 above .90	
59543 [NEO184 269.000] TO BUS 59563 [LIN314 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59597 NEO398 269.0 0.9397 59426 SEN375 269.0 0.9304	0.9776 above .90 0.9667 above .90	
		59524 NEO 56 269.0 0.9063	0.9781 above .90	
		59563 LIN314 269.0 0.9041	0.9812 above .90	
		59589 RAC375 269.0 0.9467	0.9823 above .90	
59544 [WEN205 269.000] TO BUS 59591 [MON383 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59430 BAR362 269.0 0.9441	0.9760 above .90	
59545 [PRP217 269.000] TO BUS 59635 [PRP217 134.500]	CKT 1 VOLTAGE LESS THAN 0.9500:	59635 FRP217 134.5 0.8416 59637 HUM308 134.5 0.8432	1.0213 provide solut. 0.9719 provide solut.	
		59639 DUN283 134.5 0.8417	0.9960 provide solut.	
		59640 COL318 134.5 0.8178	0.9503 provide solut.	
		59641 CAP304 134.5 0.9421	1.0105 above .90	
59546 [BIL221 269.000] TO BUS 59580 [REP359 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59542 NIC170 269.0 0.9399 59576 REP345 269.0 0.8957	0.9718 above .90 0.9586 capacitor 69kv	
59554 [BAX271 269.000] TO BUS 59601 [HOC404 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59580 REP359 269.0 0.8731 59411 COL282 269.0 0.9463	0.9516 capacitor 69kv 0.9725 above .90	
		59414 SMN425 269.0 0.9485	0.9747 above .90	
		59415 SHR444 269.0 0.9492	0.9754 above .90	
		59416 CHE299T134.5 0.8565	0.8955 provide solut.	
		59417 CHE299 134.5 0.8518	0.8909 provide solut.	
		59418 CHE300 134.5 0.8558	0.8948 provide solut.	
		59419 TWN388 134.5 0.8548	0.8938 provide solut.	
		59420 WEL186 134.5 0.8281	0.8681 provide solut.	
59561 [NOL443 269.000] TO BUS 59610 [NOL435 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59561 NOL443 269.0 0.9400 59566 AND322 269.0 0.9474	0.9875 above .90 0.9822 above .90	
59562 [OZD312 269.000] TO BUS 59603 [POR410 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59603 FOR410 269.0 0.9196	1.0101 above .90	
59568 [STK324 269.000] TO BUS 59616 [STK631J269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59568 STK324 269.0 0.9064 59637 HUM308 134.5 0.9314	0.9981 above .90 0.9719 above .90	
		59638 STK324 134.5 0.9307	1.0317 above .90	
		59640 COL318 134.5 0.9096	0.9503 above .90	
		59641 CAP304 134.5 0.9306	1.0105 above .90	

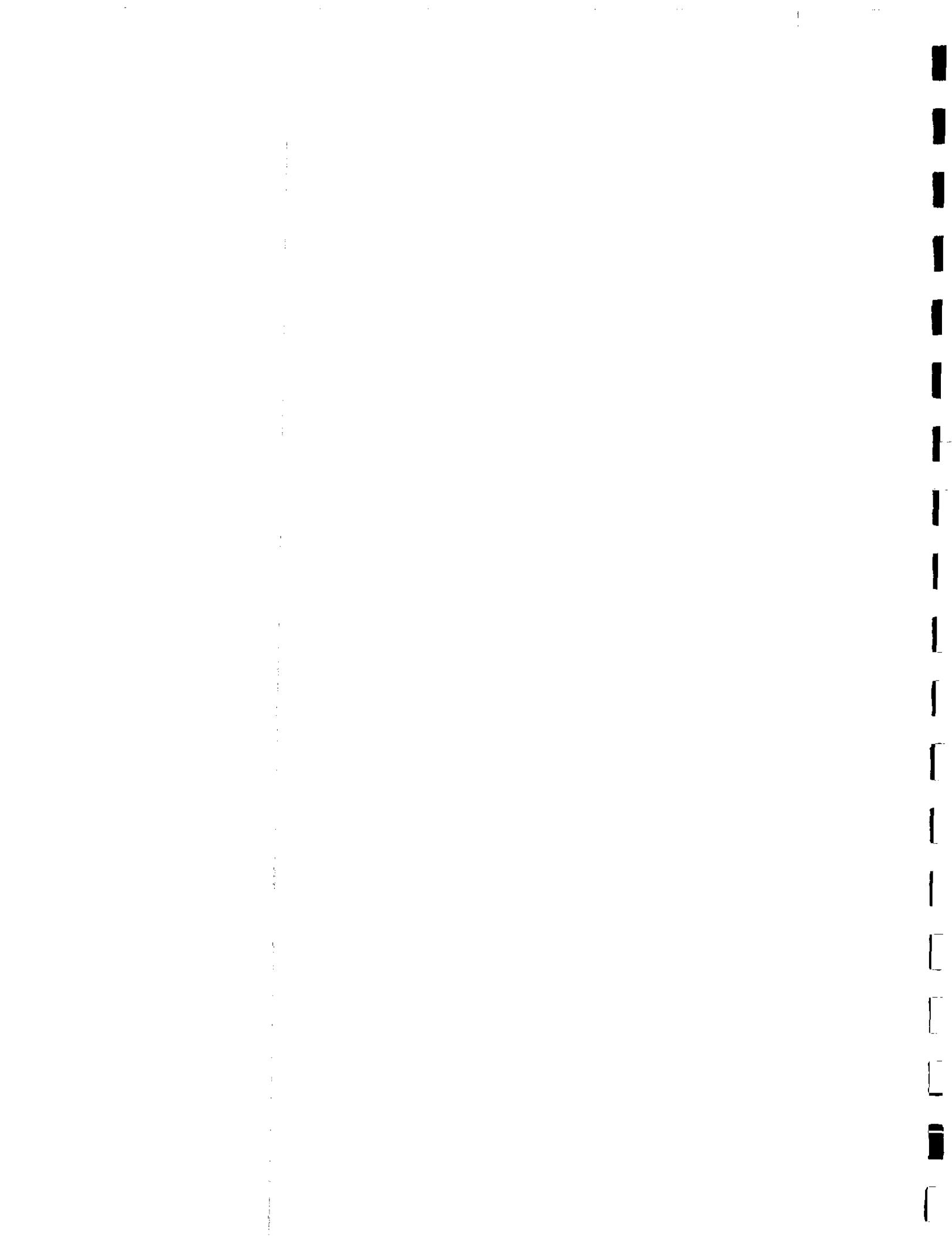
VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X--- BUS ---X)	V-CONT	V-INIT
59568 [STK324 269.000] TO BUS 59638 [STK324 134.500]	CKT 1 VOLTAGE LESS THAN 0.9500:	59637 HUM308 134.5 0.9254 59638 STK324 134.5 0.9236 59640 COL318 134.5 0.9027 59641 CAP304 134.5 0.9235		0.9719 above .90 1.0317 above .90 0.9503 above .90 1.0105 above .90
59569 [DEC326 269.000] TO BUS 59594 [DEC392 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59569 DEC326 269.0 0.9461		1.0020 above .90
59570 [OZK330 269.000] TO BUS 59604 [BHJ415 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59570 OZK330 269.0 0.8515 59609 OZK434 269.0 0.8567		0.9824 provide solut 0.9791 provide solut
59570 [OZK330 269.000] TO BUS 59609 [OZK434 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59609 OZK434 269.0 0.9372		0.9791 above .90
59577 [MTV351 269.000] TO BUS 59606 [MTV420 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59577 MTV351 269.0 0.9482		0.9692 above .90
59578 [AUR355 269.000] TO BUS 59606 [MTV420 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59577 MTV351 269.0 0.9409 59606 MTV420 269.0 0.9406		0.9692 above .90 0.9704 above .90
59587 [STR370 269.000] TO BUS 59596 [FRG397 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59433 STRKAMO269.0 0.9172 59587 STR370 269.0 0.9107		0.9611 above .90 0.9615 above .90
59589 [RAC375 269.000] TO BUS 59592 [JOP389 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59426 BEN375 269.0 0.9370		0.9667 above .90
59590 [QUA377 269.000] TO BUS 59601 [HOC404 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59427 COM381 269.0 0.8938 59579 COM381T269.0 0.9028		0.9859 capacitor 69kv 0.9941 above .90
59590 QUA377 269.000] TO BUS 59601 [HOC404 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59590 QUA377 269.0 0.9000		0.9956 capacitor 69kv
59598 [LKW400 269.000] TO BUS 59613 [GRN614 269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59548 BOS249 269.0 0.9474 59550 GLD251 269.0 0.9390 59598 LKW400 269.0 0.9340		0.9737 above .90 0.9739 above .90 0.9778 above .90
59605 [STK418 269.000] TO BUS 59614 [SK631CJ269.000]	CKT 1 VOLTAGE LESS THAN 0.9500:	59548 BOS249 269.0 0.9409 59549 ARC250 269.0 0.9151 59550 GLD251 269.0 0.9313 59568 STK324 269.0 0.9052 59598 LKW400 269.0 0.9259 59613 GRN614 269.0 0.9257 59614 SK631CJ269.0 0.9044 59616 STK631J269.0 0.9053 59637 HUM308 134.5 0.9266 59638 STK324 134.5 0.9380 59640 COL318 134.5 0.9045 59641 CAP304 134.5 0.9340		0.9737 above .90 0.9908 above .90 0.9739 above .90 0.9981 above .90 0.9778 above .90 0.9830 above .90 0.9989 above .90 0.9982 above .90 0.9719 above .90 1.0317 above .90 0.9503 above .90 1.0105 above .90
59635 [FRP217 134.500] TO BUS 59639 [DUN283 134.500]	CKT 1 VOLTAGE GREATER THAN 1.0500: VOLTAGE LESS THAN 0.9500:	59635 FRP217 134.5 1.0589 59637 HUM308 134.5 0.8421 59639 DUN283 134.5 0.8405 59640 COL318 134.5 0.8167 59641 CAP304 134.5 0.9415		1.0213 above .90 0.9719 provide solut. 0.9960 provide solut. 0.9503 provide solut.
59637 [HUM308 134.500] TO BUS 59639 [DUN283 134.500]	CKT 1 VOLTAGE GREATER THAN 1.0500: VOLTAGE LESS THAN 0.9500:	59635 FRP217 134.5 1.0591 59639 DUN283 134.5 1.0580 59637 HUM308 134.5 0.8491 59640 COL318 134.5 0.8239 59641 CAP304 134.5 0.9446		1.0213 above .90 0.9960 above .90 0.9719 provide solut. 0.9503 provide solut.
59637 [HUM308 134.500] TO BUS 59641 [CAP304 134.500]	CKT 1 VOLTAGE LESS THAN 0.9500:	59637 HUM308 134.5 0.9322 59640 COL318 134.5 0.9104		0.9719 above .90 0.9503 above .90
59638 [STK324 134.500] TO BUS 59641 [CAP304 134.500]	CKT 1 VOLTAGE LESS THAN 0.9500:	59637 HUM308 134.5 0.9305 59640 COL318 134.5 0.9087 59641 CAP304 134.5 0.9291		0.9719 above .90 0.9503 above .90 1.0105 above .90
59484 [DEC392 5161.00] TO BUS 53139 [FLINTCR5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59428 SWC414 269.0 0.9247 59484 DEC392 5 161 0.9386 59496 NOL435 5 161 0.9429 59561 NOL443 269.0 0.9395 59566 AND322 269.0 0.9429 59569 DEC326 269.0 0.9297		0.9761 above .90 1.0164 above .90 0.9928 above .90 0.9875 above .90 0.9822 above .90 1.0020 above .90

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VOLTAGE REPORT TABLE

OUTAGED BRANCH	VOLTAGE RANGE	(X---- BUS ----X)	V-CONT	V-INIT
59497 [RVS438 5161.00] TO BUS 52672 [TABLE R5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59473 RDS295 5 161	0.8959	0.9343 provide solut.
		59474 OZD312 5 161	0.8864	0.9400 provide solut.
		59475 BRN331 5 161	0.8846	0.9380 provide solut.
		59482 HOL387 5 161	0.8844	0.9430 provide solut.
		59488 BRN412 5 161	0.8847	0.9380 provide solut.
		59489 BRN413 5 161	0.8828	0.9427 provide solut.
		59492 RDS424 5 161	0.8906	0.9318 provide solut.
		59495 GRT433 5 161	0.8835	0.9401 provide solut.
		59497 RVS438 5 161	0.8830	0.9464 provide solut.
		59648 OZD312 14.60	0.9106	0.9633 above .90
59605 [STK418 269.000] TO BUS 96118 [5STKABC 161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59548 BO9249 269.0	0.9410	0.9737 above .90
		59549 ARC250 269.0	0.9152	0.9908 above .90
		59550 GLD251 269.0	0.9313	0.9739 above .90
		59568 STK324 269.0	0.9054	0.9981 above .90
		59598 LKW400 269.0	0.9260	0.9778 above .90
		59605 STK418 269.0	0.9046	1.0005 above .90
		59613 GRN614 269.0	0.9258	0.9830 above .90
		59614 SK631CJ269.0	0.9046	0.9989 above .90
		59616 STK631J269.0	0.9055	0.9982 above .90
		59637 HUM308 134.5	0.9268	0.9719 above .90
		59638 STK324 134.5	0.9381	1.0317 above .90
		59640 COL318 134.5	0.9046	0.9503 above .90
		59641 CAP304 134.5	0.9342	1.0105 above .90
CONTINGENCY SPP-12				
59207 [ARCHIE 5161.00] TO BUS 59240 [ADRIAN 5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	59434 BUF409 269.0	0.9414	0.9614 above .90
59216 [BUTLER_5161.00] TO BUS 59240 [ADRIAN 5161.00]	CKT 1	59478 DAD368 5 161	0.9423	0.9626 above .90
59208 [NEVADA 5161.00] TO BUS 59216 [BUTLER_5161.00]	CKT 1	59637 HUM308 134.5	0.9399	0.9719 above .90
		59640 COL318 134.5	0.9175	0.9503 above .90
2010 SUMMER PEAK - ST. JOSEPH LIGHT AND POWER - AREA 679				
69703 [ST JOE 5161.00] TO BUS 69708 [WOODBIN5161.00]	CKT 1 VOLTAGE LESS THAN 0.9500:	69704 EAST 5 161	0.9482	0.9990 Acceptable
		69708 WOODBIN5 161	0.9480	1.0028 Acceptable



2006/07 Winter Peak												
From	To	Analysis Side-Transfer Level	New FCITC	Base FCITC	Limiting Facility	Initial Flow	Limit	Study Flow	OTDF	Outaged Facility	Solutions	From To
ELA & SLP	MPS	Export - 200	0	20	56640 JACQAH03 115 54054 PENTAGON3 115 1	81.8	92	81.7	0.0236	56758 STRANGR1 345 57977 CRAIG T 345 1	New Overload - Conductor Limited	WERE,WERE
		Input - 200	10	20	56640 JACQARD3 115 54054 PENTAGON3 115 1	81.8	92	82	0.0236	56758 STRANGR1 345 57977 CRAIG T 345 1	New Overload - Conductor Limited	WERE,WERE
MPS & EDE	SLP	Export - 200			No Limits Found							
		Input - 200			No Limits Found							
MPS & SLP	EDS	Export - 200	14	N/Aval	56640 JACQARD3 115 54054 PENTAGON3 115 1	81.8	92	81.4	-0.0126	56758 STRANGR1 345 57977 CRAIG T 345 1	New Overload - Conductor Limited	WERE,WERE
		Input - 200			No Limits Found							

From		To		Analysts Side-Transfer Level		New FCITC		Base FCITC		Limiting Facility		Initial Flow		Limit		Study Flow		OTDF		Outaged Facility		Solutions		From To	
EDE & SLP	MPS			Export	Import	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import	OTDF	Outaged Facility	Solutions					
				Export - 200	Import - 200	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found						
				Import - 200	Export - 200	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found						
				Export - 200	Import - 200	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found						
				Import - 200	Export - 200	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found	No Limits Found						

2004 Summer Peak											
From	To	Analysis Side-Transfer Level	New FCITC	Base FCITC	Limiting Facility	Initial Flow	Limit	Study Flow	OTDF	Outaged Facility	Solutions
ELC & SLP	MWS	Export - 200	50	234	56841 JAHBAL03 115 56981 STRANGR3 115 1	-220.2	-223	-220.9	0.0119	56758 STRANGR7 345 57977 CHAO 7 345 1	New Overload - Conductor Limited
			80	123	52688 CARTHAG03 161 52689 CARTHG 268 0 1	79.7	84	82.8	0.0352	52688 CARTHAG03 161 52689 CARTHG 268 0 2	New Overload - Transformer
			101	123	52688 CARTHAG03 161 52689 CARTHG 268 0 2	79.2	84	82.7	0.0348	52688 CARTHAG03 161 52689 CARTHG 268 0 1	New Overload - Transformer
		Import - 200	121	123	52688 CARTHAG03 161 52689 CARTHG 268 0 1	79.7	84	83.8	0.0352	52688 CARTHAG03 161 52689 CARTHG 268 0 2	New Overload - Transformer
MPS & EDE	SLP	Export - 200	94	258	52688 CARTHAG03 161 52689 CARTHG 268 0 1	79.7	84	81.2	0.0167	52688 CARTHAG03 161 52689 CARTHG 268 0 2	New Overload - Transformer
			106	293	52688 CARTHAG03 161 52689 CARTHG 268 0 2	79.2	84	80.8	0.0165	52688 CARTHAG03 161 52689 CARTHG 268 0 1	New Overload - Transformer
		Import - 200	No Links Found								
MPS & SLP	EDE	Export - 200	181	167	53131 DYB88 8 161 53136 ERDGER88 161 1	240.6	245	244.9	0.0238	53133 ECNTRTB8 161 53187 GENTYRS 161 1	New Overload - Conductor Limited
		Import - 200	113	167	53131 DYB88 8 161 53136 ERDGER88 161 1	240.6	245	243.2	0.0238	53133 ECNTRTB8 161 53187 GENTYRS 161 1	New Overload - Conductor Limited

