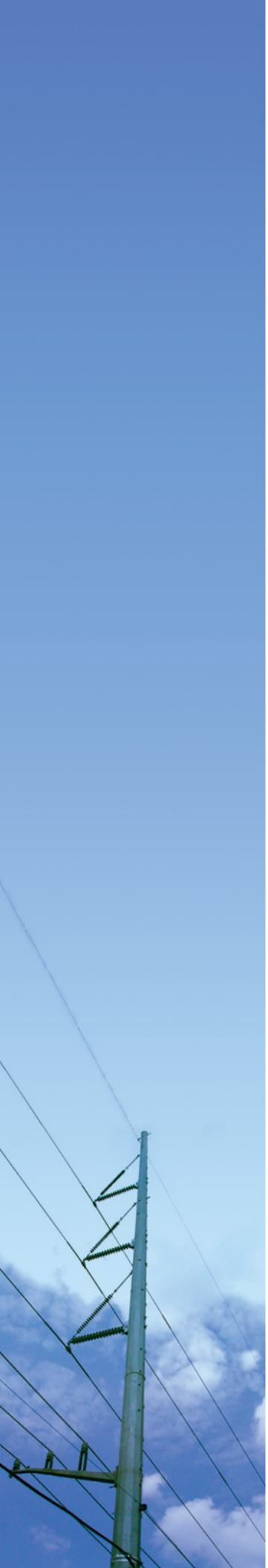

Feasibility Cluster Study for Generation Interconnection Requests

Southwest Power Pool
Engineering Dept.
Tariff Studies – Generation Interconnection

(FCS-2008-001)
DECEMBER, 2008

SPP Southwest Power Pool

Executive Summary

On November 10, 2008, Southwest Power Pool (SPP) filed with the Federal Energy Regulatory Commission (FERC) in Docket No. ER09-262-000 a request for waiver of certain provisions of its Large Generator Interconnection Procedures to study interconnection requests in clusters rather than serially. Based on this request, certain generation interconnection requests in the SPP Generation Interconnection Queue have been clustered together for the following Feasibility Cluster Study[1]. This Feasibility Cluster Study analyzes the interconnecting of multiple generation interconnection requests associated with new generation totaling 15,000 MW of new generation which would be located within the transmission systems of American Electric Power West (AEPW), Empire District Electric (EMDE), Midwest Energy Inc. (MIDW), Missouri Public Service (MIPU), Mid-Kansas Electric Power LLC (MKEC), Oklahoma Gas and Electric (OKGE), Southwestern Public Service (SPS), Sunflower Electric Power Corporation (SUNC), Westar Energy (WERE) and/or Western Farmers Electric Cooperative (WFEC). The various generation interconnection requests have differing proposed in-service dates[2]. The generation interconnection requests included in this Feasibility Cluster Study are listed in Appendix A by their queue number, amount, area, requested interconnection point, proposed interconnection point, and the requested in-service date.

This Feasibility Cluster Study report also includes Feasibility Studies for several generation interconnection requests associated with new generation totaling 550MW, which is electrically isolated from the generation that has been clustered together. These new generation projects will be located within the transmission systems of Empire District Electric (EMDE), Missouri Public Service (MIPU), and Western Farmers Electric Cooperative (WFEC). The Feasibility Studies for the electrically isolated new generation are included in Appendix J.

Power flow analysis has indicated that for the powerflow cases studied, 15,000 MW of nameplate generation may be interconnected with transmission system reinforcements within the SPP transmission system. The need for reactive compensation in accordance with Order No. 661-A for wind farm interconnection requests will be evaluated in the System Impact Cluster Study based on the wind turbine manufacturer and type requested by the Customer. Dynamic stability studies performed as part of the System Impact Cluster Study will provide additional guidance as to whether the required reactive compensation can be static or a portion must be dynamic (such as a SVC).

The total estimated minimum cost for interconnecting the studied generation interconnection request is $2,380,000,000. These costs are shown in Appendix F and G. These costs do no include the Interconnection Customer Interconnection Facilities as defined by the SPP Open Access Transmission Tariff (OATT). This cost does not include the possible need for reactive compensation or additional network constraints in the SPP transmission system that were identified are shown in Appendix I.

Network Constraints listed in Appendix I are in the local area of the new generation when this generation is injected throughout the SPP footprint for the Energy Resource (ER) Interconnection Request. Additional Network constraints will have to be verified with a Transmission Service Request

[1] The results of this Feasibility Cluster Study are subject to FERC orders in Docket No. ER09-262-000. In the event that the FERC denies or conditions granting of the waiver request, the generation interconnection requests listed in Appendix A and Appendix J may be subject to restudy.

[2] The generation interconnection requests in-service dates will need to be deferred based on the required lead time for the Network Upgrades necessary. The Interconnection Customer's that proceed to the Facility Study will be provided a new in-service date based on the competition of the Facility Study.

(TSR) and associated studies. With a defined source and sink in a TSR, this list of Network Constraints will be refined and expanded to account for all Network Upgrade requirements.

The required interconnection costs listed in Appendix F and G do not include all costs associated with the deliverability of the energy to final customers. These costs are determined by separate studies if the Customer submits a Transmission Service Request through SPP's Open Access Same Time Information System (OASIS) as required by Attachment Z1 of the SPP OATT.

Based on the SPP Tariff Attachment O, transmission facilities that are part of the SPP Transmission Expansion Plan (STEP) including Sponsored Economic Upgrades or the Balanced Portfolio that may be approved by the SPP Board of Directors will receive notifications to construct. These projects will then be considered construction pending projects and would not be assignable to the Feasibility Cluster Study Generation Interconnection Requests. The network Upgrades identified in the Base Case Upgrades will not be assigned to the Feasibility Cluster Study for Generation Interconnection Requests either.

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Background

As of December 1, 2008, the Southwest Power Pool's (SPP) Generation Interconnection Queue had a total of 157 requests that have not yet had an Impact Study posted. Of these, 39 are in the 2007 series and the remaining 118 are in the 2008 series requests. Due to the increasing number of backlogged requests for generation interconnection, the standard method of studying each individual request serially was deemed ineffective and unfair to the growing number of Customers waiting in the queue.

In addition to the number of requests waiting to be studied, the majority of the requests for interconnection were located in regions of the area transmission systems that are simply incapable of interconnecting the resources being requested. As a result, the previous method of study could inevitably assign a single generation interconnection customer with building necessary facilities and transmission long distances to portions of the transmission system that can accommodate the requested amounts of generation. With so many requests associated with generation located in the same areas, it was deemed necessary to share and allocate costs among those requests that were found to have the same effects on the existing transmission as well as the proposed transmisson upgrades required for system reliability.

The proposed method used to study the feasibility of the generation interconnection requests included in the Feasibility Cluster Study is specifically designed to address these two issues-backlogged requests and shared cost allocation of proposed upgrade facilities and/or the mitigation of affected existing facilities.

On November 10, 2008, SPP filed a Petition for Waiver of certain Large Generator Interconnection Procedures (LGIP) tariff provisions with the Federal Energy Regulation Commission (FERC) (Docket #ER09-262). Specifically, the requests asked for a waiver of certain provisions of the SPP LGIP regarding notice, timeframes for completing studies, and to modify the parameters for restudy. This waiver would allow SPP to use a clustering mechanism to clear the backlog of pending study requests and help in the transition to a reformed generation interconnection process which is expected to be filed at FERC in the spring of 2009.

The study method requested by the waiver divides the number of pending requests into megawatt segments of approximately 15,000 MW, with exceptions for those requests that are associated with generation deemed 'electrically isolated' from the generation associated with the majority of the other pending requests. These "electrically isolated" requests will then be grouped or clustered together with other requests that would have similar impacts on the regional transmission system. Through sensitivity and powerflow analysis, the most efficient and cost effective solutions are realized and tested. An additional benefit realized through this method of study has been greater coordination between the upgrades proposed by the Generation Interconnection (GI) group and those proposed by other SPP Engineering groups. When possible, all upgrade options are analyzed for effectiveness leading to a more efficient system as a whole. With upgrades defined, the requests can then be allocated costs in proportion to their usage and affects on system facilities.[3].

[3] The results of this Feasibility Cluster Study are subject to FERC orders in Docket No. ER09-262-000. In the event that the FERC denies or conditions granting of the waiver request, the generation interconnection requests listed in Appendix A and Appendix J may be subject to restudy.

Introduction

Generation Interconnection Requests in the Southwest Power Pool (SPP) Generation Interconnection Queue have been clustered together for the following Feasibility Cluster Study. This Feasibility Cluster Study analyzes multiple generation interconnection requests associated with new generation totaling 15,000 MW which would be located within the transmission systems of American Electric Power West (AEPW), Empire District Electric (EMDE), Midwest Energy Inc. (MIDW), Missouri Public Service (MIPU), Mid-Kansas Electric Power LLC (MKEC), Oklahoma Gas and Electric (OKGE), Southwestern Public Service (SPS), Sunflower Electric Power Corporation (SUNC), Westar Energy (WERE) and/or Western Farmers Electric Cooperative (WFEC). The various generation interconnection requests have differing proposed in-service dates. The generation interconnection requests included in this Feasibility Cluster Study are listed in Appendix A by their queue number, amount, area, requested interconnection point, proposed interconnection point, and the requested in-service date.

This Feasibility Study also analyzes the interconnection of several generation interconnection requests totaling 550 MW of new generation which are electrically isolated to the Feasibility Cluster Study. These new generation projects will be located within the transmission systems of Empire District Electric (EMDE), Missouri Public Service (MIPU), and/or Mid-Kansas Electric Power LLC (MKEC). The Feasibility Studies for the electrically isolated new generation are included in Appendix J.

The primary objective of this Feasibility Cluster Study is to identify the system constraints associated with connecting the generation to the area transmission system. The Feasibility and other subsequent Interconnection Studies are designed to identify attachment facilities, Network Upgrades and other Direct Assignment Facilities needed to accept power into the grid at each specific interconnection receipt point.

Model Development

Interconnection Requests Included in the Cluster – SPP has included the following interconnection requests to be analyzed in this cluster study. The interconnection requests are listed in Appendix A.

- All interconnection requests that have not yet executed a Facility Study Agreement with a queue date before March 17, 2008.
- Interconnection requests that have executed a Facility Study Agreement but were assigned over $100,000,000 in network upgrades in their respective Impact Study. These perspective cluster customers have the ability to withdraw from the cluster study as they have already been assigned network upgrades in excess of the amount allocated to them in this cluster.

Electrically Isolated Interconnection Requests – There were four interconnection requests that were determined to be electrically isolated in that they did not share common electrical constraints/impacts with the rest of the cluster interconnection studies. These interconnection requests total 550 MW and are denoted in Appendix A with a footnote. Of these four interconnection

requests, one has already posted a Feasibility Study. The other three have their separately studied Feasibility Studies included in Appendix J.

Previous Queued Projects – The previous queued projects included in this study are listed in Appendix B. In addition to the Base Case Upgrades, the previous queued projects were assumed to be in-service and added to the Base Case models. These projects were dispatched as Energy Resources with equal distribution across the SPP footprint.

Development of Base Cases – The 2007 series Transmission Service Request (TSR) Models 2010 spring and 2012 summer scenario 0 peak cases were used for this study. The 2010 spring case was created using the 2008 spring case. The load in each of SPP's control areas were scaled up approximately 2% for each year for a total of 4% total load scaling. Comparing the final 2010 case load numbers to the 2008 series models revealed that the loading estimates are accurate. After the 2010 spring and the 2012 summer peak cases were developed, each of the control areas' resources were then redispatched using current dispatch orders.

Base Case Upgrades -The following facilities have been previously assigned or are in construction stages and were assumed to be in-service at the time of dispatch and added to the base case models.

- Woodward – Northwest 345kV line to be built by OKGE for 2009 in-service[4].
- Hitchland 345/230/115kV upgrades to be built by SPS for 2010/2011 in-service[5].
  - Hitchland – Pringle 230kV line
  - Hitchland – Moore County 230kV line
  - Hitchland – Perryton 230kV line
  - Hitchland – Texas County 115kV line
  - Hitchland – Hansford County 115kV line
  - Hitchland – Sherman County Tap 115kV line
- Valliant – Hugo – Sunnyside 345kV – assigned to Aggregate Study AG3-2006 Customers for 2011 in-service
- Wichita – Reno County – Summit 345kV to be built by WERE for 2011 in-service[6].
- Rose Hill – Sooner 345kV to be built by WERE/OKGE for 2010 in-service.
- Finney – Holcomb 345kV Ckt #2 line assigned to GEN-2006-044 interconnection customer for possible 2010 in-service[7].

Potential Upgrades Not in the Base Case – Any potential upgrades that do not have a Notification to Construct (NTC) to construct have not been included in the base case. These upgrades include any identified in the SPP Extra-High Voltage (EHV) overlay plan, SPP Balanced Portfolio, or any other SPP planning study other than the upgrades listed above in the previous section.

[4] Approved based on an order of the Corporation Commission of the State of Oklahoma, Cause No. PUD 200800148 Order No. 55935

[5] Approved 230kV upgrades are based on SPP 2007 STEP. Upgrades may need to be re-evaluated in the system impact study.

[6] Approved based on an order of the Kansas Corporation Commission issued in Docket no. 07-WSEE-715-MIS

[7] Based on Facility Study Posting November 2008

Regional Groupings – The interconnection requests listed in Appendix A were grouped together in seven different regional groups based on geographical and electrical impacts. These groupings are shown in Appendix C.

To determine interconnection impacts, seven different dispatch variations of the spring base case models were developed to accommodate the regional groupings.

For each group, the various wind generating plants were modeled at 80% nameplate of maximum generation. The wind generating plants in the other areas were modeled at 20% nameplate of maximum generation. This process created seven different scenarios with each group being studied at 80% nameplate rating. These projects were dispatched as Energy Resources with equal distribution across the SPP footprint. This method allowed for the identification of network constraints that were common to the regional groupings that could then in turn have the mitigating upgrade cost allocated throughout the entire cluster.

Peaking units were not dispatched in the 2010 spring model. To study peaking units' impacts, the 2012 summer peak model was chosen and peaking units were modeled at 100% of the nameplate rating and wind generating facilities were modeled at 10% of the nameplate rating.

Identification of Network Constraints

The initial set of network constraints were found by using PTI MUST First Contingency Incremental Transfer Capability (FCITC) analysis on the entire cluster grouping dispatched at the various levels mentioned above. These constraints were then screened to determine if any of the generation interconnection requests had at least a 20% Distribution Factor (DF) upon the constraint. Constraints that measured at least a 20% DF from at least one interconnection request were considered for mitigation.

Determination of Cost Allocated Network Upgrades

Cost Allocated Network Upgrades of wind generation interconnection requests were determined using the 2010 spring model. Cost Allocated Network Upgrades of peaking units was determined using the 2012 summer peak model. Once a determination of the required Network Upgrades was made, a powerflow model of the 2010 spring case was developed with all cost allocated Network Upgrades in-service. A MUST FCITC analysis was performed to determine the Power Transfer Distribution Factors (PTDF), a distribution factor with no contingency, that each generation interconnection request had on each new upgrade. The impact each generation interconnection request had on each upgrade project was weighted by the size of each request. Finally the costs due by each request for a particular project were then determined by allocating the portion of each request's impact over the impact of all affecting requests.

For example, assume that there are three Generation Interconnection requests, X, Y, and Z that are responsible for the costs of Upgrade Project '1'. Given that their respective PTDF for the project have been determined, the cost allocation for Generation Interconnection request 'X' for Upgrade Project 1 is found by the following set of steps and formulas:

- Determine an Impact Factor on a given project for all responsible GI requests:

  Request X Impact Factor on Upgrade Project 1 = PTDF(%)(X) * MW(X) = X1

  Request Y Impact Factor on Upgrade Project 1 = PTDF(%)(Y) * MW(Y) = Y1

  Request Z Impact Factor on Upgrade Project 1 = PTDF(%)(Z) * MW(Z) = Z1

- Determine each request's Allocation of Cost for that particular project:

$$\text{Request X's Project 1 Cost Allocation (\$)} = \frac{\text{Network Upgrade Project 1 Cost(\$)} * X1}{X1 + Y1 + Z1}$$

- Repeat previous for each responsible GI request for each Project

The cost allocation of each needed Network Upgrade is determined by the size of each request and its impact on the given project. This allows for the most efficient and reasonable mechanism for sharing the costs of upgrades.

Credits for Amounts Advanced for Network Upgrades – Interconnection Customer shall be entitled to credits in accordance with Attachment Z1 of the SPP Tariff for any Network Upgrades including any tax gross-up or any other tax-related payments associated with the Network Upgrades, and not refunded to the Interconnection Customer.

Interconnection Facilities

The requirement to interconnect the 15,000 MW of generation into the existing and proposed transmission systems in the affected areas of the SPP transmission footprint consist of the necessary cost allocated shared facilities listed in Appendix G. Interconnection Facilities specific to each generation interconnection request are listed in Appendix F. Appendix G lists the costs by upgrade.

Other Network Constraints in the AEPW, MIDW, OKGE, SPS, SUNC, SWPA, MKEC, WERE, AND WFEC transmission systems that were identified are shown in Appendix I. With a defined source and sink in a TSR, this list of Network Constraints will be refined and expanded to account for all Network Upgrade requirements.

A preliminary one-line drawing for each generation interconnection request are listed in Appendix D. Figure 1 depicts the major transmission line Network Upgrades needed to support the interconnection of the generation amounts requested in this study.

Powerflow Analysis Methodology

The Southwest Power Pool (SPP) Criteria states that:

> "The transmission system of the SPP region shall be planned and constructed so that the contingencies as set forth in the Criteria will meet the applicable *NERC Reliability Standards* for transmission planning. All MDWG power flow models shall be tested to verify compliance with the System Performance Standards from NERC Table 1 – Category A."

The ACCC function of PSS/E was used to simulate single contingencies in portions or all of the modeled control areas of AEPW, EMDE, Grand River Dam Authority (GRDA), Kansas City Power & Light (KCPL), MIDW, MIPU, OKGE, SPS, SUNC, WERE, WFEC and other control areas were applied and the resulting scenarios analyzed. This satisfies the "more probable" contingency testing criteria mandated by NERC and the SPP criteria.

Powerflow Analysis

A powerflow analysis was conducted for each Interconnection Customer's facility using modified versions of the 2010 spring peak and the 2012 summer peak models. The output of the Interconnection Customer's facility was offset in each model by a reduction in output of existing online SPP generation. This method allows the request to be studied as an Energy Resource (ER) Interconnection Request. The available seasonal models used were through the 2012 Summer Peak.

This analysis was conducted assuming that previous queued requests in the immediate area of these interconnect requests were in-service. The analysis of the each Customer's project indicates that additional criteria violations will occur on the AEPW, MIDW, OKGE, SPS, SUNC, SWPA, MKEC, WERE, AND WFEC transmission systems under steady state and contingency conditions in the peak seasons.

The need for reactive compensation will be determined during the Cluster System Impact Cluster Study. The need for reactive compensation will be based on the Interconnection Customer's choice of wind turbine make and manufacturer. Dynamic Stability studies performed as part of the System Impact Cluster Study will provide additional guidance as to whether the reactive compensation can be static or a portion must be dynamic (such as a SVC or STATCOM). It is possible that an SVC or STATCOM device will be required at the Customer facility because of FERC Order 661A Low Voltage Ride-Through Provisions (LVRT) which went into effect January 1, 2006. FERC Order 661A orders that wind farms stay on-line for 3-phase faults at the point of interconnection even if that requires the installation of a SVC or STATCOM device

Cluster Group 1 (Woodward Area) – The Woodward area contained approximately 3,013 MW of new interconnection requests in addition to the 739MW of prior queued interconnection requests The major constraints in the Woodward area consists of the proposed Woodward – Northwest 345kV line, the Mooreland – Elk City 138kV line, and the Roman Nose – El Reno 138kV line. To mitigate these constraints, an additional 345kV line was modeled and all new interconnection requests along the Roman Nose – El Reno path were modeled at the 345kV voltage level. In addition, a 765kV line was modeled from Woodward to Comanche County, Kansas and a double 345kV transmission line from Comanche County to Wichita, Kansas to alleviate constraints that were impacted by the Woodward group.

Cluster Group 2 (Hitchland Area) – The Hitchland area contained 3,925 MW of interconnection request in addition to the 1,668 MW of previous queued generation interconnection requests. The major constraints for the Hitchland area included all Southwestern Public Service tie lines to both American Electric Power West and Sunflower Electric Power Corporation as well as the 345kV line to Nebraska. The need for 765kV facilities was necessitated by the large amount of generation in this group and its remoteness from the SPP backbone transmission system. Once mitigation was determined to resolve thermal issues, full AC powerflow analysis determined several voltage collapse situations that were impacted by the generation in this group. The result was that an entire 765kV ring was necessary from Hitchland – Woodward – Comanche County – Spearville – Finney County and back to Hitchland. Also, it was determined to avoid voltage collapse, that at least two 765/345kV autotransformers were needed at the Hitchland, Comanche, Woodward, and Spearville substations.

Cluster Group 3 (Spearville Area) – The Spearville area contained 2,780 MW of interconnection requests and 866 MW of previous queued interconnection requests. The major constraints caused by the Spearville area cluster included the Spearville – Mullergren 230kV line, the Spearville 345/230kV transformer, the Holcomb – Setab – Mingo – Red Willow 345kV line, and the Hitchland – Finney 345kV line. To mitigate these constraints, a portion of the 765kV loop from the Hitchland group was utilized from Hitchland – Finney – Spearville – Comanche – Woodward. In addition, a double 345kV transmission line from Comanche County – Wichita was modeled. Also, to alleviate loadings on the Mingo – Red Willow 345kV line, a Mingo – Knoll 345kV line was modeled which is used primarily by the Mingo/NW Kansas group but was also allocated to this group.

Cluster Group 4 (Mingo/NW Kansas Group) – The Mingo/NW Kansas group had 1,204 MW in addition to the 715 MW of previously queued generation in the area. The major constraints that were caused by this grouping of interconnection requests were very similar to the Spearville group. As such, the same mitigations were used for this group as the Spearville group.

Cluster Group 5 (Amarillo Area) – The Amarillo group had 1,440 MW of interconnection requests in addition to the 1,606 MW of previously queued interconnection requests in this area. The major constraints were all of the SPS area tie lines. A 345kV line from Potter – Grapevine – Beckham County, Oklahoma – Lawton Eastside was modeled as a first step. However, the amount of generation in this area required the addition of another 345kV line from Beckham County to the Anadarko area and also utilized portions of the 765kV loop required for the Hitchland group. In addition, to lower the flows on the Nichols – Grapevine – Elk City 230kV line, part of the mitigation involves disconnecting certain previous queued projects from the 230kV line and reconnecting them to the proposed 345kV system at Beckham County. Because of the severe weaknesses of the Nichols – Grapevine – Elk City corridor, it is recommended that the new 345kV system not tie into the 230kV system at any point between Potter and Anadarko/Lawton. The 345kV buses at Grapevine and Beckham County do not have interconnections to the 230kV system. This results in a higher than expected cost allocation for the generation interconnection requests along this corridor because the interconnection requests are entirely using these new lines and are not using the existing system in the area to any extent. These interconnection requests include GEN-2007-008, GEN-2007-030, and GEN-2007-045.

Cluster Group 6 (South Panhandle/New Mexico) – This group had 1,230 MW of interconnection requests in addition to the 870 MW of previously queued interconnection requests. The major constraints in this area were all SPS tie lines. As a result, the solution set of network upgrades was similar to the Amarillo group.

Cluster Group 7 (Southwestern Oklahoma) – This group had 660 MW of interconnection requests in addition to the 947 MW of previous queued generation in the area. Since most of the generation in this area had requested points of interconnection into relatively strong places on the existing transmission system, most constraints were on the local system. It was seen that the 345kV line from Beckham County – Anadarko relieved most of these local constraints.

Below is the map of the transmission upgrades that are recommended to interconnect the cluster of generation interconnection requests.

Regional Map with Proposed Upgrades

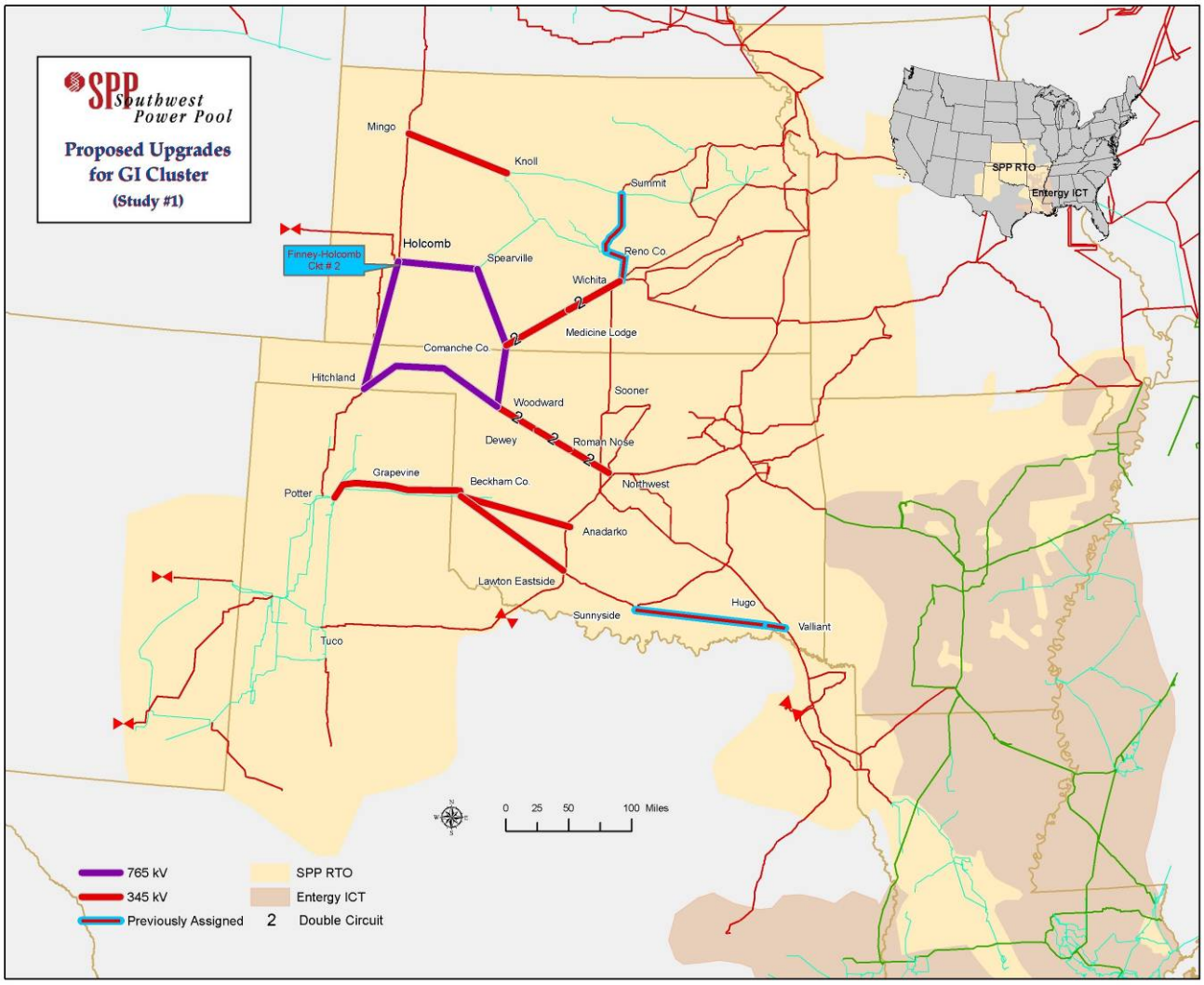


Figure 1 - Proposed Major Line Upgrades

Conclusion

The minimum cost of interconnecting all of the interconnection requests included in the Feasibility Cluster Study is estimated at $2,380,000,000 for the Allocated Network Upgrades and Transmission Owner Interconnection Facilities are listed in Appendix E and F. These costs do not include the cost of upgrades of other transmission facilities listed in Appendix I which are Network Constraints.

These interconnection costs do not include any cost of Network Upgrades determined to be required by short circuit or transient stability analysis. These studies will be performed if the Interconnection Customer executes the Interconnection System Impact Study Agreement and provides the required data along with demonstration of Site Control and a $50,000 deposit. At the time of the System Impact Cluster Study, a better determination of the interconnection facilities may be available.

The required interconnection costs listed in Appendices E, and F, and other upgrades associated with Network Constraints do not include all costs associated with the deliverability of the energy to final customers. These costs are determined by separate studies if the Customer submits a Transmission Service Request (TSR) through SPP's Open Access Same Time Information System (OASIS) as required by Attachment Z1 of the SPP Open Access Transmission Tariff (OATT).

Appendix

A: Generation Interconnection Requests Considered for Feasibility Study

Request	Amount	Area	Requested Point of Interconnection	Proposed Point of Interconnection	Requested In-Service Date
GEN-2006-006	205	MKEC	Spearville 230kV	Spearville 230kV	12/31/2010
GEN-2006-049	400	SPS	*Hitchland - Finney 345kV	*Hitchland - Finney 345kV	12/31/2010
GEN-2007-005	200	SPS	Pringle 115kV	Pringle 115kV	12/1/2008
GEN-2007-008	300	SPS	Grapevine 230kV	^Grapevine 345kV	12/1/2009
GEN-2007-010	200	SPS	Potter County - Plant X 230kV	Potter County - Plant X 230kV	9/20/2010
GEN-2007-012	300	SUNC	Mingo - Red Willow 345kV	Mingo - Red Willow 345kV	10/15/2010
GEN-2007-019	375	SPS	Lamar - Finney 345kV	Lamar - Finney 345kV	8/30/2008
GEN-2007-021	201	OKGE	Dewey 138kV	^Dewey 345kV	8/1/2009
GEN-2007-025	300	WERE	Wichita - Woodring 345kV	*Comanche - Wichita 345kV	10/1/2009
GEN-2007-026	130	SPS	Potter County - Plant X 230kV	Potter County - Plant X 230kV	12/31/2009
GEN-2007-027	60	SPS	Curry County - Norton 115kV	Curry County - Norton 115kV	12/1/2009
GEN-2007-028***	200	MKEC	Concordia - East Manhattan 230kV	Concordia - East Manhattan 230kV	12/1/2010
GEN-2007-030	200	SPS	Grapevine 230kV	^Grapevine 345kV	3/1/2009
GEN-2007-032	150	WFEC	Clinton Junction - Clinton 138kV	Clinton - Junction - Clinton 138kV	12/31/2010
GEN-2007-033	200	SPS	Pringle - Harrington-Nichols 230kV	Pringle - Harrington-Nichols 230kV	8/1/2009
GEN-2007-034	150	SPS	Tolk - Eddy County 345kV	Tolk - Eddy County 345kV	8/15/2010
GEN-2007-036	200	SUNC	Spearville 345kV	Spearville 345kV	12/31/2012
GEN-2007-037	200	SUNC	Spearville 345kV	Spearville 345kV	12/31/2012
GEN-2007-038	200	SUNC	Spearville 345kV	Spearville 345kV	12/31/2012
GEN-2007-040	500	SUNC	Holcomb - Spearville 345kV	Holcomb - Spearville 345kV	12/15/2010
GEN-2007-041	600	SPS	*Hitchland 345kV	*Hitchland 345kV	12/31/2010
GEN-2007-042	360	SPS	*Hitchland 345kV	*Hitchland 345kV	9/30/2010
GEN-2007-043	300	AEPW	Lawton Eastside - Cimarron 345kV	Lawton Eastside - Cimarron 345kV	12/1/2009
GEN-2007-044	300	OKGE	Roman Nose 138kV	^Roman Nose 345kV	12/1/2009
GEN-2007-045	210	SPS	Conway 115kV	^Grapevine 345kV	12/31/2011
GEN-2007-046	210	SPS	Texas County - *Hitchland 115kV	*Hitchland 115kV	12/31/2011
GEN-2007-047	204	SUNC	Mingo 115kV	Mingo 345kV	7/1/2009
GEN-2007-048	400	SPS	Amarillo South - Swisher County 230kV	Amarillo South - Swisher County 230kV	11/1/2009
GEN-2007-049	60	WFEC	Carter Junction 69kV	Carter Junction 69kV	12/31/2009
GEN-2007-050	350	OKGE	Woodward 138kV	*Woodward 345kV	10/1/2009
GEN-2007-051	200	WFEC	Mooreland 138kV	Mooreland 138kV	11/7/2007
GEN-2007-052	150	WFEC	Anadarko 138kV	Anadarko 138kV	5/1/2008
GEN-2007-053***	150	MIPU	Maryville 161kV	Maryville 161kV	1/30/2010
GEN-2007-055	250	SPS	Tolk - Eddy County 345kV	Tolk - Eddy County 345kV	12/30/2010
GEN-2007-056	1500	SPS	*Hitchland 345kV	*Hitchland 345kV	12/1/2009
GEN-2007-057	51	SPS	Valero 115kV	Moore County East 115kV	5/1/2009
GEN-2007-058/59****	404	SPS	*Hitchland - Finney 345kV	*Hitchland - Finney 345kV	12/31/2011
GEN-2007-060	202	OKGE	Mooreland - Northwest 345kV	^Roman Nose 345kV	12/1/2012
GEN-2007-061	200	OKGE	Woodward 138kV	*Woodward 345kV	12/31/2011
GEN-2007-062/063**	840	OKGE	*Woodward 345kV	*Woodward 345kV	12/31/2011
GEN-2007-064	150	MIDW	Ness City - Mullergren 115kV	Ness City - Alexander 115kV	12/31/2010
GEN-2007-065	50	MKEC	Waldo - Smith Center 115kV	Waldo - Smith Center 115kV	12/31/2010
GEN-2008-001	200	MIDW	^Knoll 345kV	^Knoll 345kV	12/1/2010
GEN-2008-003	120	OKGE	Woodward 138kV	Woodward 138kV	8/31/2009
GEN-2008-007	102	SPS	Grassland 230kV	Grassland 230kV	12/1/2009
GEN-2008-008	60	SPS	Graham 115kV	Graham 115kV	12/31/2010
GEN-2008-009	60	SPS	San Juan Mesa 230kV	San Juan Mesa 230kV	3/1/2012
GEN-2008-010***	50	WFEC	Hugo 345kV	Hugo 345kV	1/1/2013
GEN-2008-011	600	SUNC	Holcomb 345kV	Holcomb 345kV	10/1/2010
GEN-2008-012***	150	EMDE	Decatur - Noel 161kV	Decatur - Noel 161kV	10/1/2010

Request	Amount	Area	Requested Point of Interconnection	Proposed Point of Interconnection	Requested In-Service Date
GEN-2008-013	300	OKGE	Wichita - Woodring 345kV	Wichita - Woodring 345kV	10/1/2010
GEN-2008-014	150	SPS	TUCO - Oklaunion 345kV	TUCO - Oklaunion 345kV	12/1/2010
GEN-2008-015	150	SPS	TUCO - Oklaunion 345kV	TUCO - Oklaunion 345kV	12/1/2011
GEN-2008-016	248	SPS	Grassland 230kV	Grassland 230kV	12/1/2009
GEN-2008-017	300	SUNC	Setab 345kV	Setab 345kV	3/1/2012
GEN-2008-018	405	SUNC	Holcomb - Spearville 345kV	Finney 345kV	12/31/2012
GEN-2008-019/020**	300	OKGE	Dewey 138kV	^Dewey 345kV	12/31/2012
GROUPED TOTAL	**15,007**				

* Planned Facility
^ Proposed Facility
** Alternate requests - counted as one request for study purpose
*** Electrically Remote Interconnection Requests
****Portions of this request are alternates for other interconnection requests listed as prior queued generators

B: Prior Queued Interconnection Requests

Request	Amount	Area	Requested/Proposed Point of Interconnection	Status or In-Service Date
GEN-2001-014	96	WFEC	Fort Supply 138kV	On-Line
GEN-2001-026	74	WFEC	Washita 138kV	On-Line
GEN-2001-033	180	SPS	San Juan Mesa Tap 230kV	On-Line
GEN-2001-036	80	SPS	Caprock Tap 115kV	On-Line
GEN-2001-037	103	OKGE	Windfarm Switching 138kV	On-Line
GEN-2001-039A	105	MKEC	Greensburg - Judson-Large 115kV	On Suspension
GEN-2001-039M	100	SUNC	Leoti - City Services 115kV	12/31/2008
GEN-2002-005	120	WFEC	Morewood - Elk City 138kV	12/31/2008
GEN-2002-006	150	SPS	Texas County 115kV	12/31/2010
GEN-2002-008	240	SPS	*Hitchland 345kV	12/31/2008
GEN-2002-009	80	SPS	Hansford County 115kV	On-Line
GEN-2002-022	240	SPS	Bushland 230kV	On-Line
GEN-2002-025A	150	MKEC	Spearville 230kV	On-Line
GEN-2003-004	100	WFEC	Washita 138kV	On-Line
GEN-2003-005	100	WFEC	Anadarko - Paradise 138kV	On Suspension
GEN-2003-013**	198	SPS	*Hitchland - Finney 345kV	On Suspension
GEN-2003-020	160	SPS	Carson County 115kV	12/31/2008
GEN-2003-022	120	AEPW	Washita 138kV	On-Line
GEN-2004-003	240	SPS	Conway 115kV	On Suspension
GEN-2004-014	155	MKEC	Spearville 230kV	On Suspension
GEN-2004-020	27	AEPW	Washita 138kV	On-Line
GEN-2004-023	21	WFEC	Washita 138kV	On-Line
GEN-2005-002	80	SPS	Pringle - Riverview 230kV	On Suspension
GEN-2005-003	31	WFEC	Washita 138kV	On-Line
GEN-2005-008	130	OKGE	Woodward 138kV	On-Line
GEN-2005-010	160	SPS	Roosevelt County - Tolk West 230kV (Single Ckt Tap)	On Suspension
GEN-2005-012	250	SUNC	Spearville 345kV	10/1/2011
GEN-2005-015	150	SPS	TUCO - Oklaunion 345kV	On Suspension
GEN-2005-017	340	SPS	*Hitchland - Potter County 345kV	On Suspension
GEN-2005-021	86	SPS	Kirby 115kV	On Suspension
GEN-2006-002	150	AEPW	Grapevine - Elk City 230kV	On Suspension
GEN-2006-020	20	SPS	*Hitchland - Sherman County Tap	12/31/2009
GEN-2006-032	200	MIDW	South Hays 230kV	IA Pending
GEN-2006-034	81	SUNC	Kanarado - Sharon Springs 115kV	12/31/2010
GEN-2006-035	225	AEPW	Grapevine - Elk City 230kV	IA Pending
GEN-2006-039	400	SPS	Tap and Tie both Potter County - Plant X 230kV and Bushland - Deaf Smith 230kV	On Suspension
GEN-2006-040	100	SUNC	Mingo 115kV	Study Complete
GEN-2006-043	99	AEPW	Grapevine - Elk City 230kV	Study Complete
GEN-2006-044	400	SPS	*Hitchland 345kV	Facility Study
GEN-2006-045	240	SPS	Tap and Tie both Potter County - Plant X 230kV and Bushland - Deaf Smith 230kV	Study Complete
GEN-2006-046	130	OKGE	Dewey 138kV	12/31/2009
GEN-2006-047	240	SPS	Tap and Tie both Potter County - Plant X 230kV and Bushland - Deaf Smith 230kV	12/31/2009
GEN-2006-048	150	SPS	Seven Rivers 115kV	12/31/2010
GEN-2007-002	160	SPS	Grapevine 115kV	9/1/2009
GEN-2007-004	150	SPS	Amoco Switching - Yoakum County 230kV	5/1/2009
GEN-2007-006	160	OKGE	Roman Nose 138kV	12/1/2009
GEN-2007-011	135	SUNC	Syracuse 115kV	Impact Study

Request	Amount	Area	Requested/Proposed Point of Interconnection	Status or In-Service Date
GEN-2007-013	99	SUNC	Selkirk 115kV	11/30/2009
GROUPED TOTAL	**7205**			

* Planned Facility
**Certain Cluster requests are alternate to GEN-2003-013

C: Study Groupings

Cluster	Request	Amount	Area	Proposed Point of Interconnection
Woodward	GEN-2007-021	201	OKGE	^Dewey 345kV
	GEN-2007-044	300	OKGE	^Roman Nose 345kV
	GEN-2007-050	350	OKGE	*Woodward 345kV
	GEN-2007-051	200	WFEC	Mooreland 138kV
	GEN-2007-060	202	OKGE	^Roman Nose 345kV
	GEN-2007-061	200	OKGE	*Woodward 345kV
	GEN-2007-062/063**	840	OKGE	*Woodward 345kV
	GEN-2008-003	120	OKGE	Woodward 138kV
	GEN-2008-013	300	OKGE	Wichita - Woodring 345kV
	GEN-2008-019/020**	300	OKGE	^Dewey 345kV
	AREA SUBTOTAL	**3013**		

Cluster	Request	Amount	Area	Proposed Point of Interconnection
Hitchland	GEN-2006-049	400	SPS	*Hitchland - Finney 345kV
	GEN-2007-005	200	SPS	Pringle 115kV
	GEN-2007-033	200	SPS	Pringle - Harrington-Nichols 230kV
	GEN-2007-041	600	SPS	*Hitchland 345kV
	GEN-2007-042	360	SPS	*Hitchland 345kV
	GEN-2007-046	210	SPS	*Hitchland 115kV
	GEN-2007-056	1500	SPS	*Hitchland 345kV
	GEN-2007-057	51	SPS	Moore County East 115kV
	GEN-2007-058/059*	404	SPS	*Hitchland - Finney 345kV
	AREA SUBTOTAL	**3925**		

Cluster	Request	Amount	Area	Proposed Point of Interconnection
Spearville	GEN-2006-006	205	MKEC	Spearville 230kV
	GEN-2007-019	375	SPS	Lamar - Finney 345kV
	GEN-2007-025	300	WERE	*Comanche - Wichita 345kV
	GEN-2007-036	200	SUNC	Spearville 345kV
	GEN-2007-037	200	SUNC	Spearville 345kV
	GEN-2007-038	200	SUNC	Spearville 345kV
	GEN-2007-040	500	SUNC	Holcomb - Spearville 345kV
	GEN-2008-011	600	SUNC	Holcomb 345kV
	GEN-2008-018	405	SUNC	Finney 345kV
	AREA SUBTOTAL	**2985**		

Cluster	Request	Amount	Area	Proposed Point of Interconnection
Mingo/ NW Kansas	GEN-2007-012	300	SUNC	Mingo - Red Willow 345kV
	GEN-2007-047	204	SUNC	Mingo 345kV
	GEN-2007-064	150	MIDW	Ness City - Alexander 115kV
	GEN-2007-065	50	MKEC	Waldo - Smith Center 115kV
	GEN-2008-001	200	MIDW	^Knoll 345kV
	GEN-2008-017	300	SUNC	Setab 345kV
	AREA SUBTOTAL	**1204**		

Cluster	Request	Amount	Area	Proposed Point of Interconnection
Amarillo	GEN-2007-008	300	SPS	^Grapevine 345kV
	GEN-2007-010	200	SPS	Potter County - Plant X 230kV
	GEN-2007-026	130	SPS	Potter County - Plant X 230kV
	GEN-2007-030	200	SPS	^Grapevine 345kV
	GEN-2007-045	210	SPS	^Grapevine 345kV
	GEN-2007-048	400	SPS	Amarillo South - Swisher County 230kV
	AREA SUBTOTAL	**1440**		

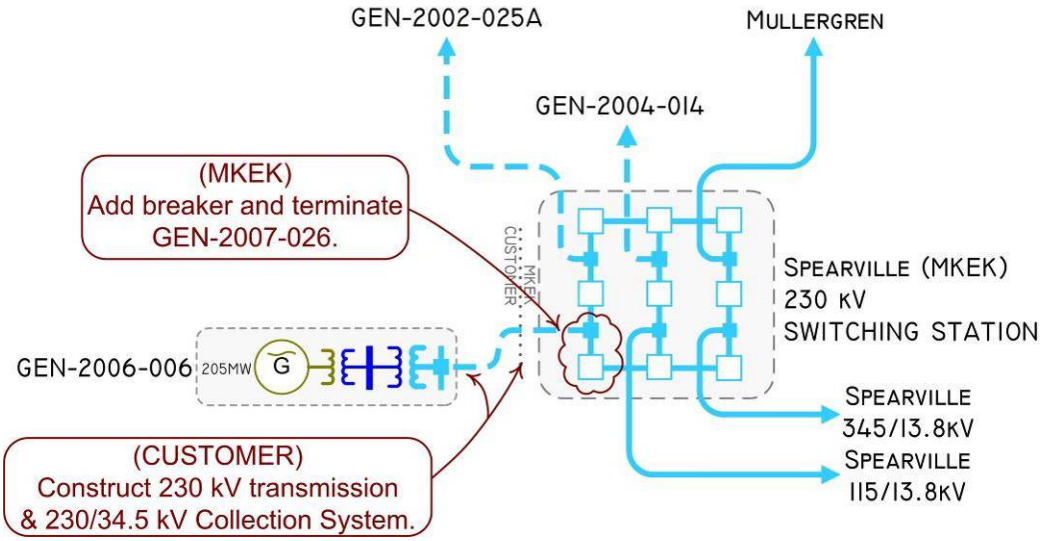
Cluster	Request	Amount	Area	Proposed Point of Interconnection
South Panhandle/ New Mexico	GEN-2007-027	60	SPS	Curry County - Norton 115kV
	GEN-2007-034	150	SPS	Tolk - Eddy County 345kV
	GEN-2007-055	250	SPS	Tolk - Eddy County 345kV
	GEN-2008-007	102	SPS	Grassland 230kV
	GEN-2008-008	60	SPS	Graham 115kV
	GEN-2008-009	60	SPS	San Juan Mesa 230kV
	GEN-2008-014	150	SPS	TUCO - Oklaunion 345kV
	GEN-2008-015	150	SPS	TUCO - Oklaunion 345kV
	GEN-2008-016	248	SPS	Grassland 230kV
	AREA SUBTOTAL	**1230**		

Cluster	Request	Amount	Area	Proposed Point of Interconnection
SW Oklahoma	GEN-2007-032	150	WFEC	Clinton Junction - Clinton 138kV
	GEN-2007-043	300	AEPW	Lawton Eastside - Cimarron 345kV
	GEN-2007-049	60	WFEC	Carter Junction 69kV
	GEN-2007-052	150	WFEC	Anadarko 138kV
	AREA SUBTOTAL	**660**		
	CLUSTERED TOTAL	**14255**		

***** Planned Facility
^ Proposed Facility
****** Alternate requests - counted as one request for study purpose

D: Proposed Point of Interconnection One line Diagrams

GEN-2006-006



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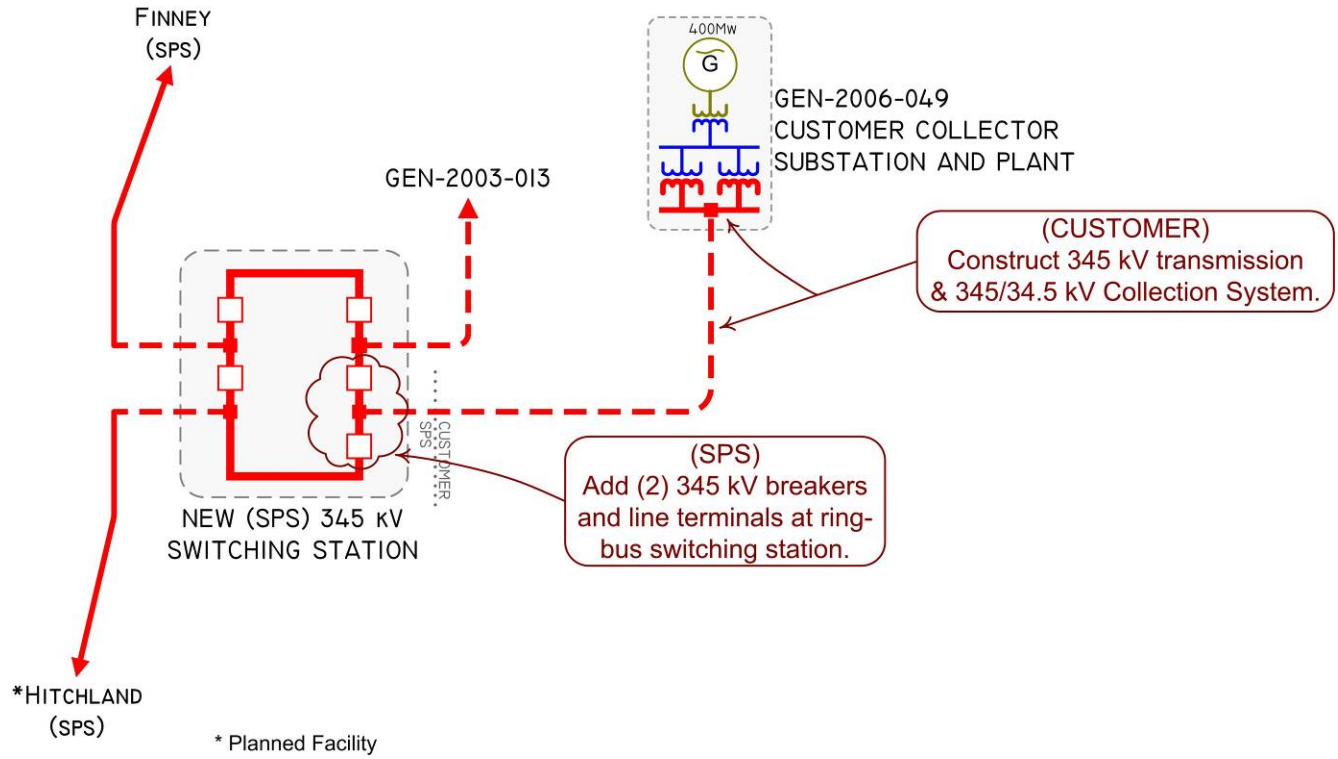
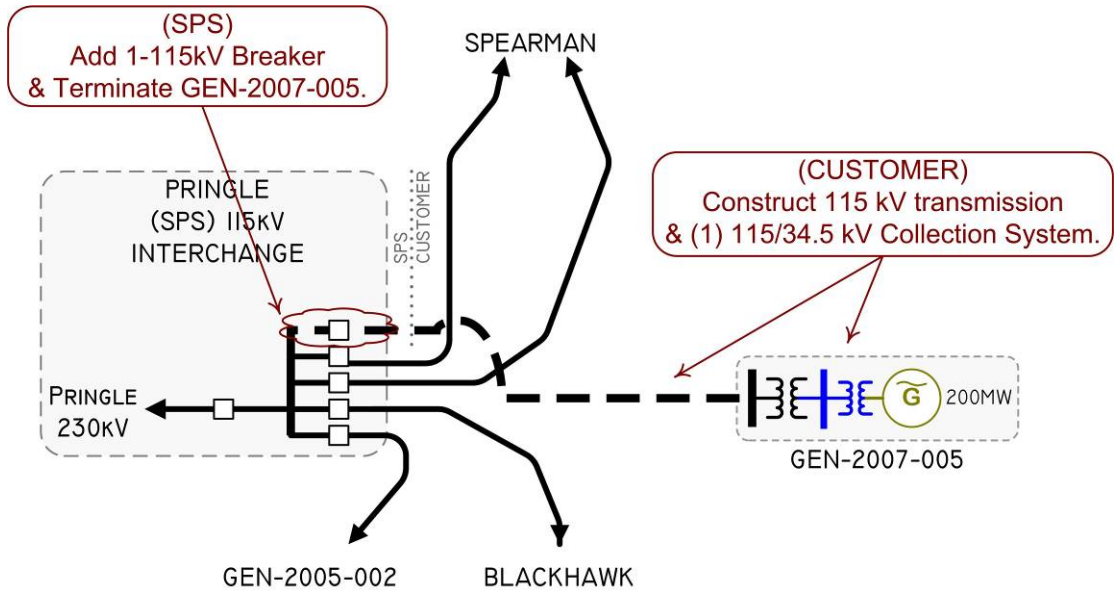


GEN-2007-005



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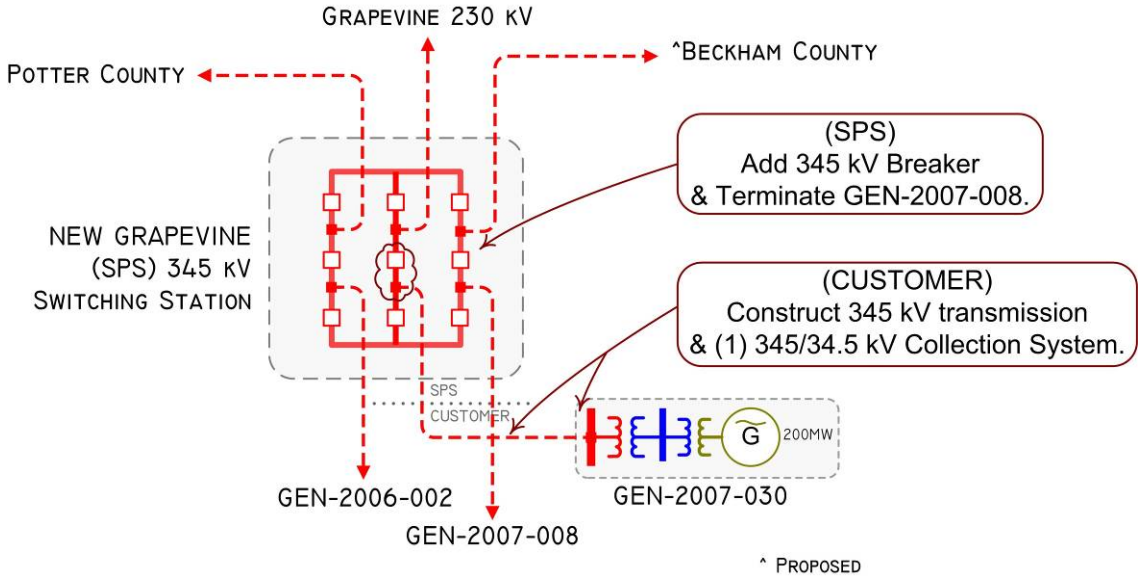
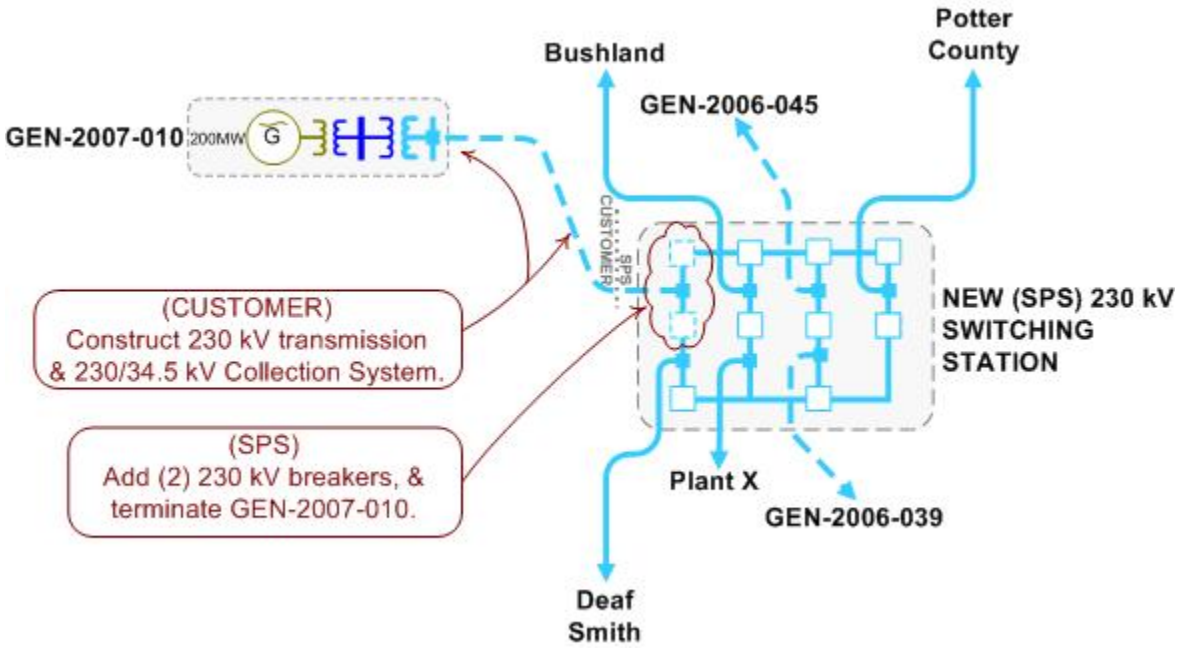
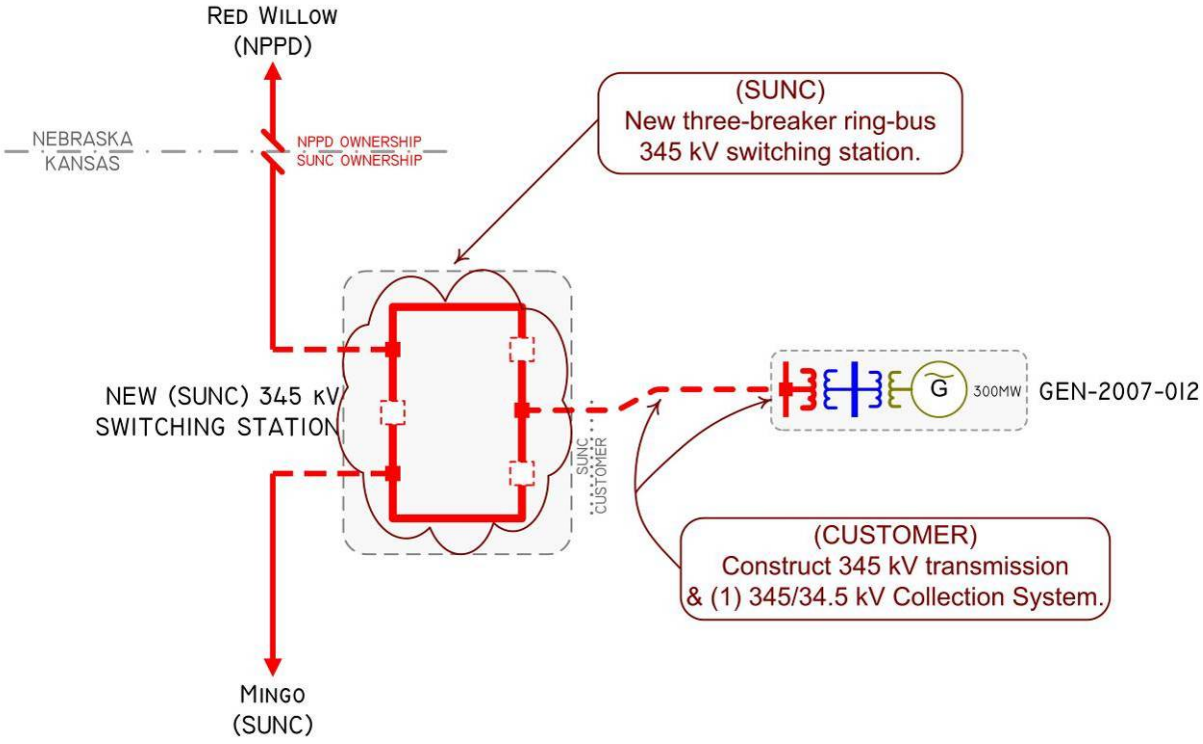


GEN-2007-010



GEN-2007-012



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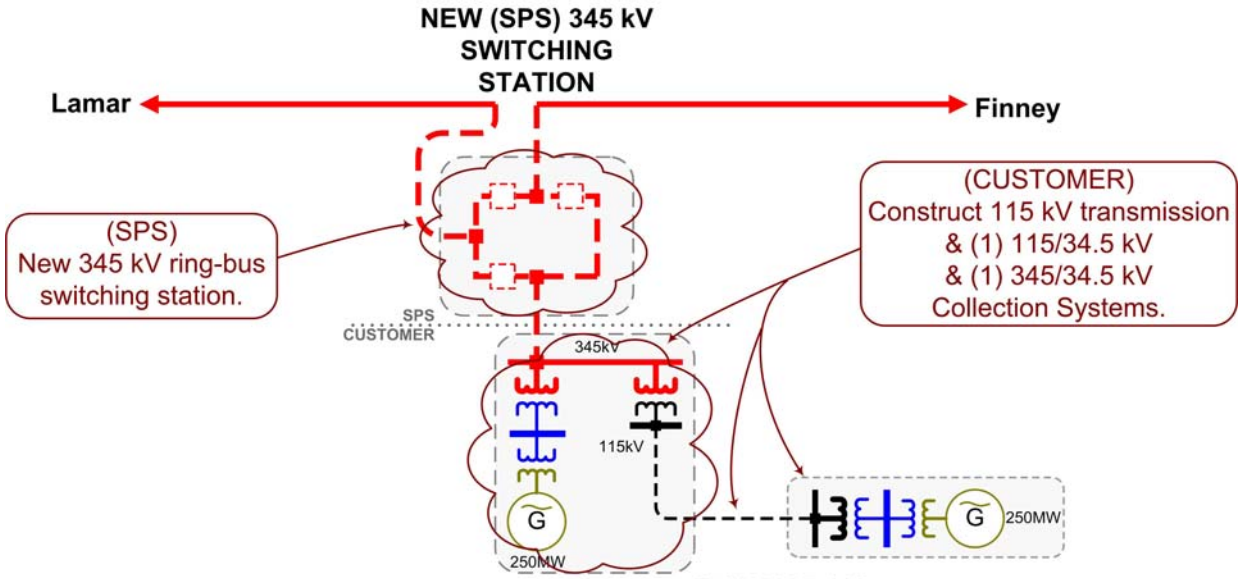
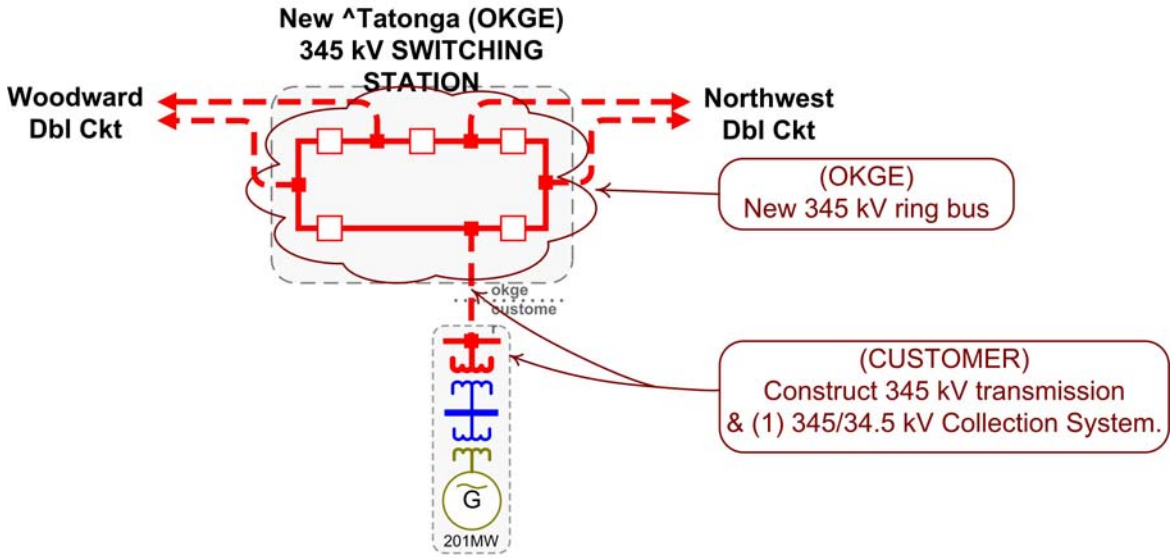


GEN-2007-019
CUSTOMER COLLECTOR SUBSTATIONS
AND PLANTS

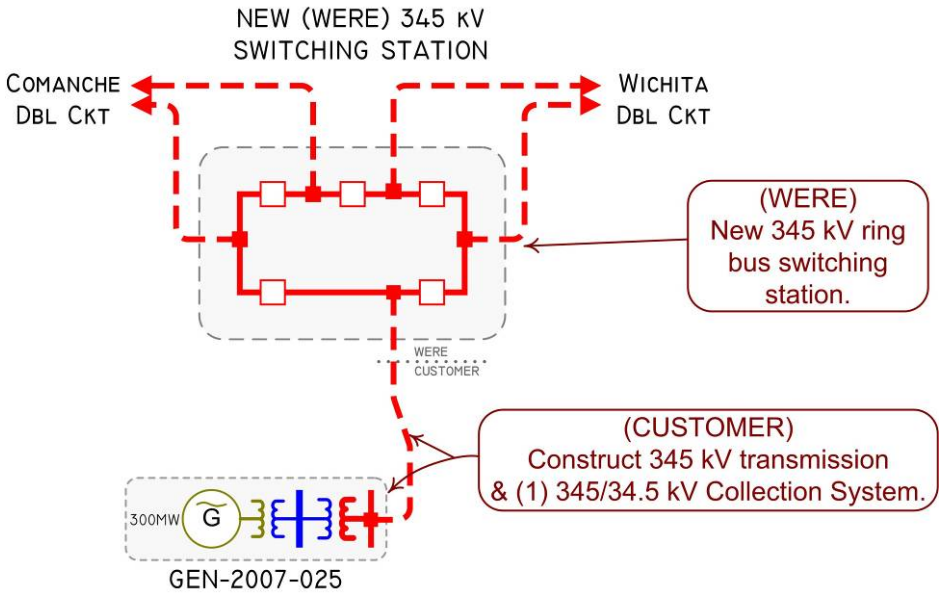
GEN-2007-021



GEN-2007-021

^ Proposed

GEN-2007-025



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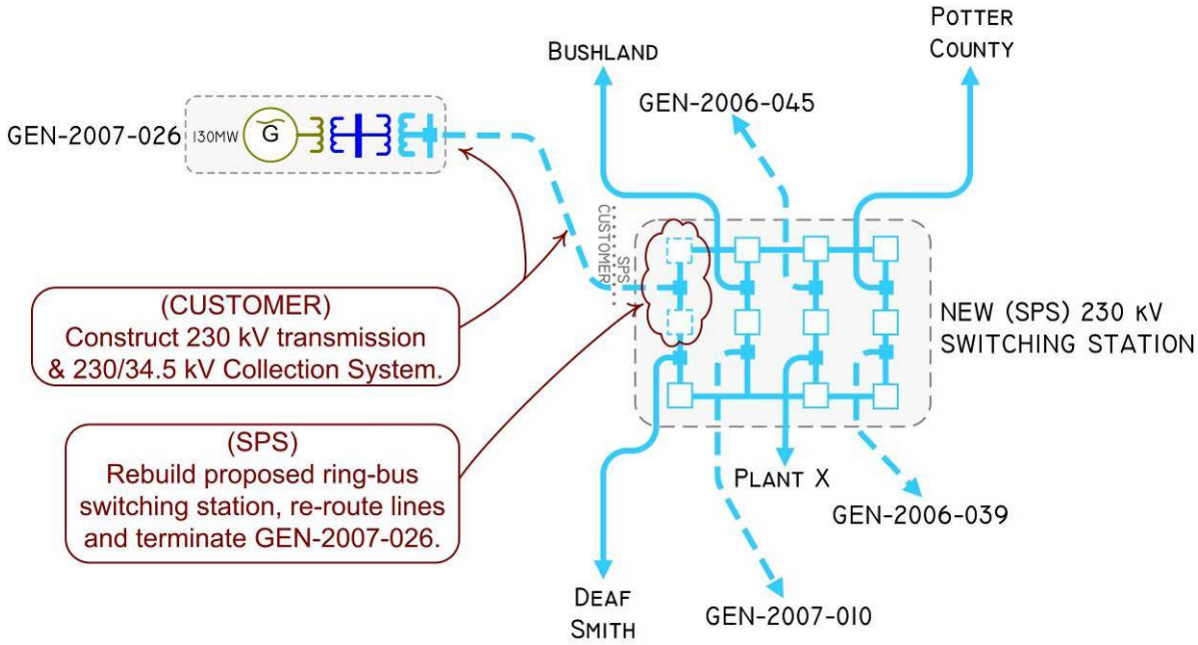

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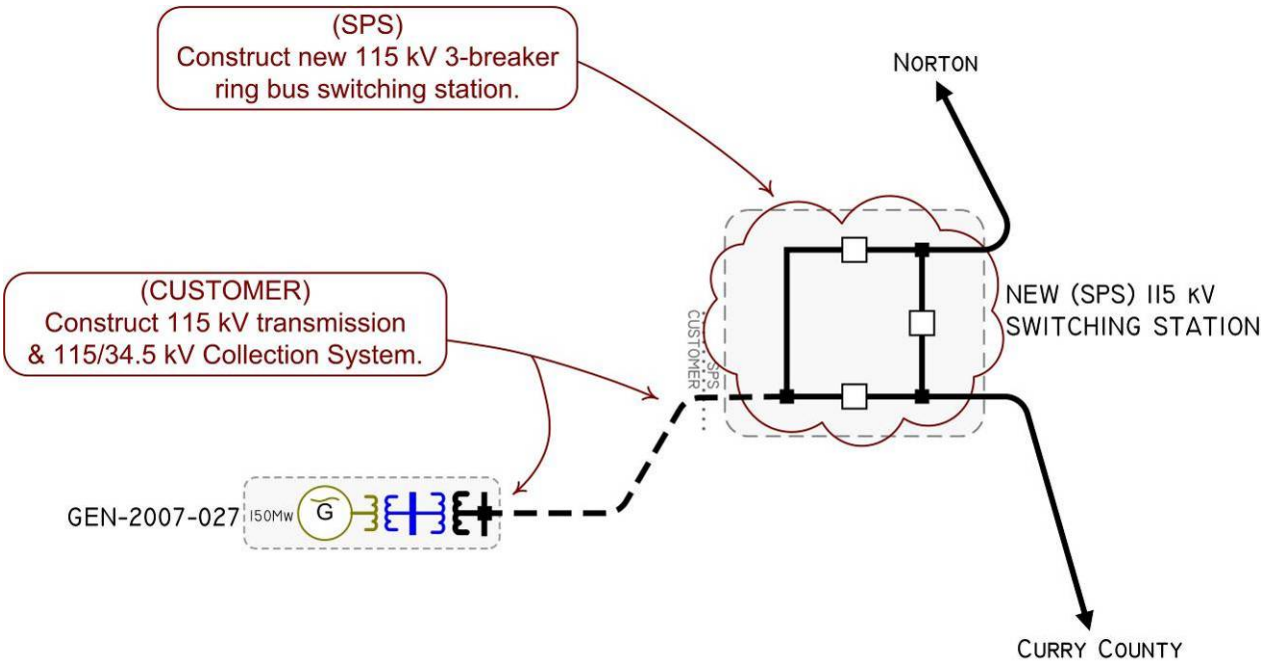
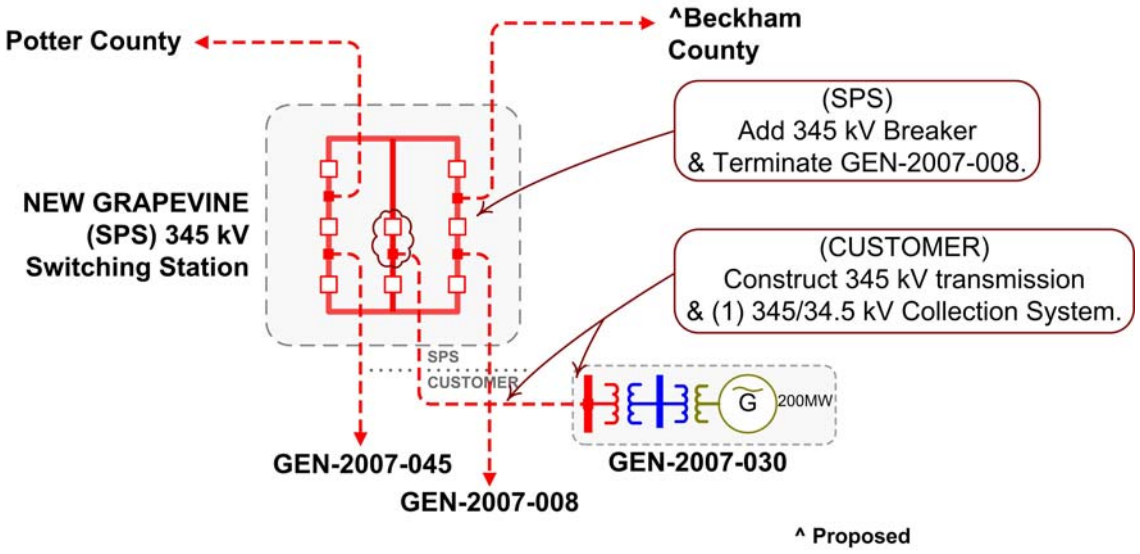


GEN-2007-028***

See GEN-2008-028 Feasibility Study report in Appendix J

GEN-2007-030



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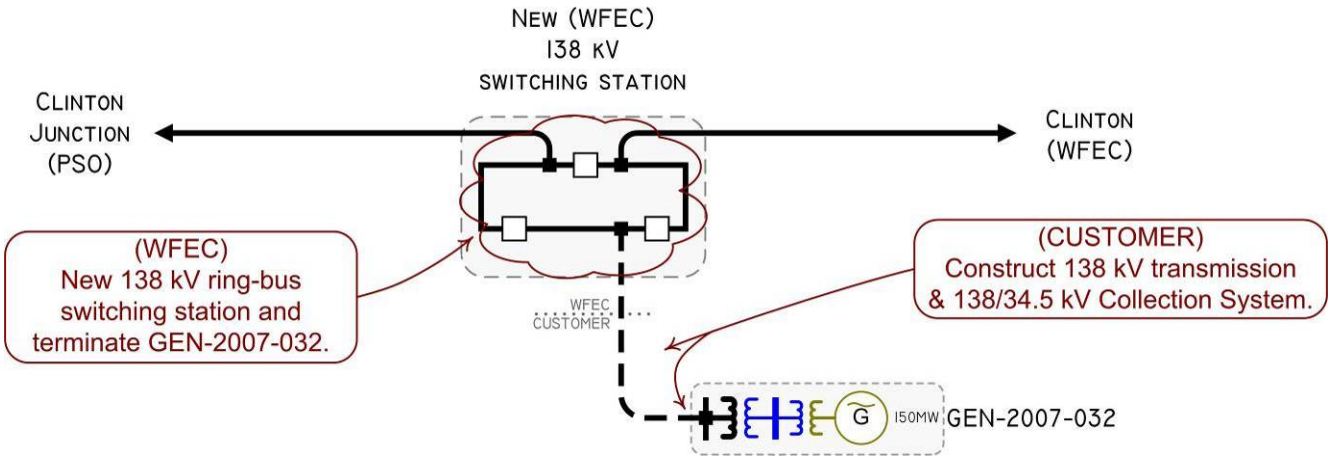

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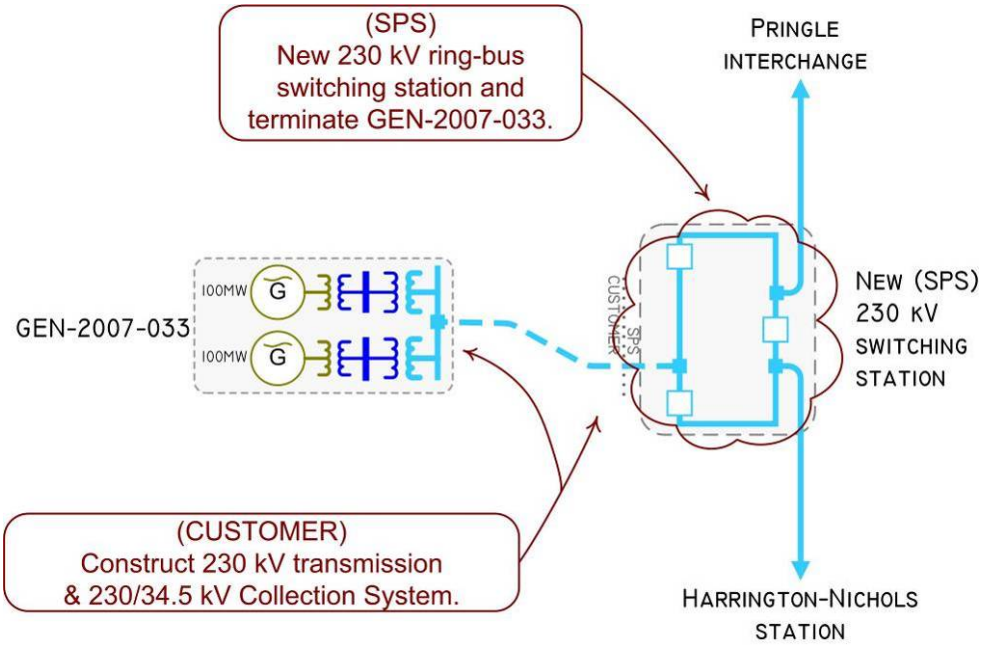

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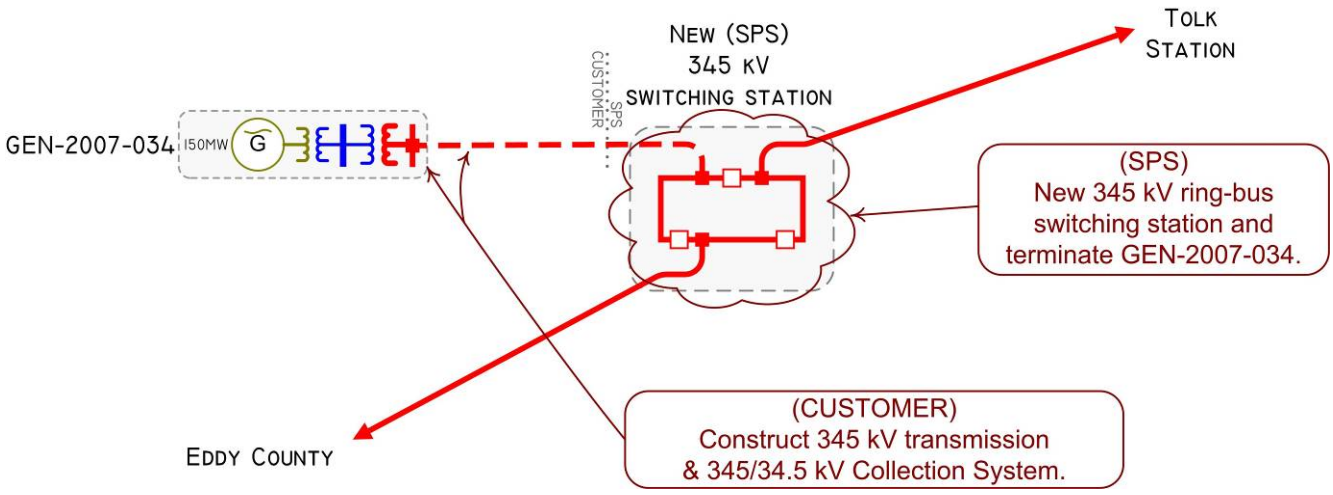

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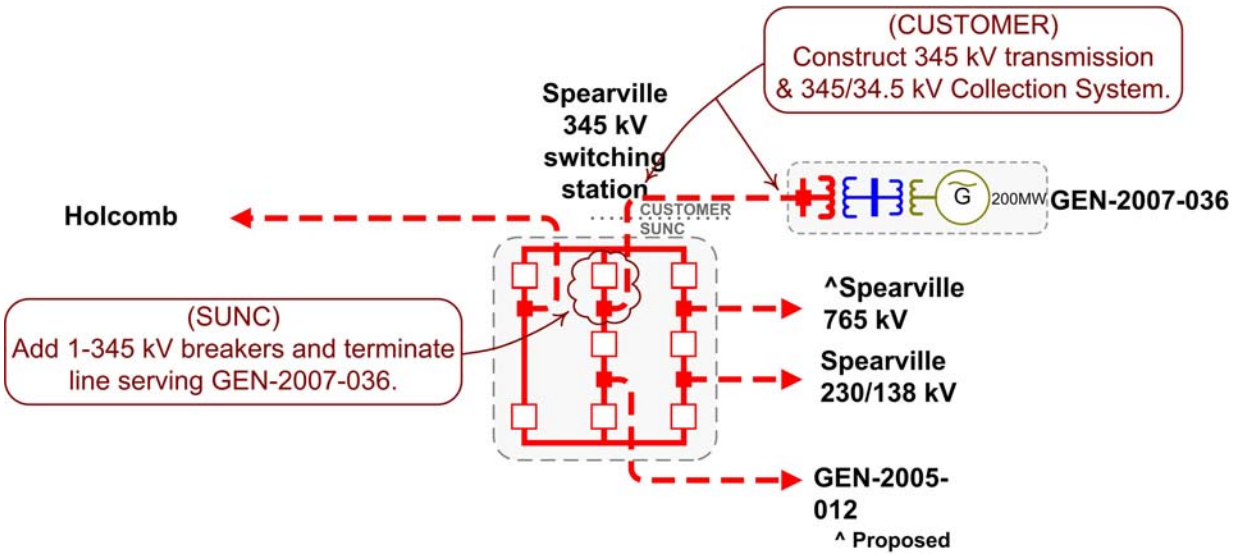

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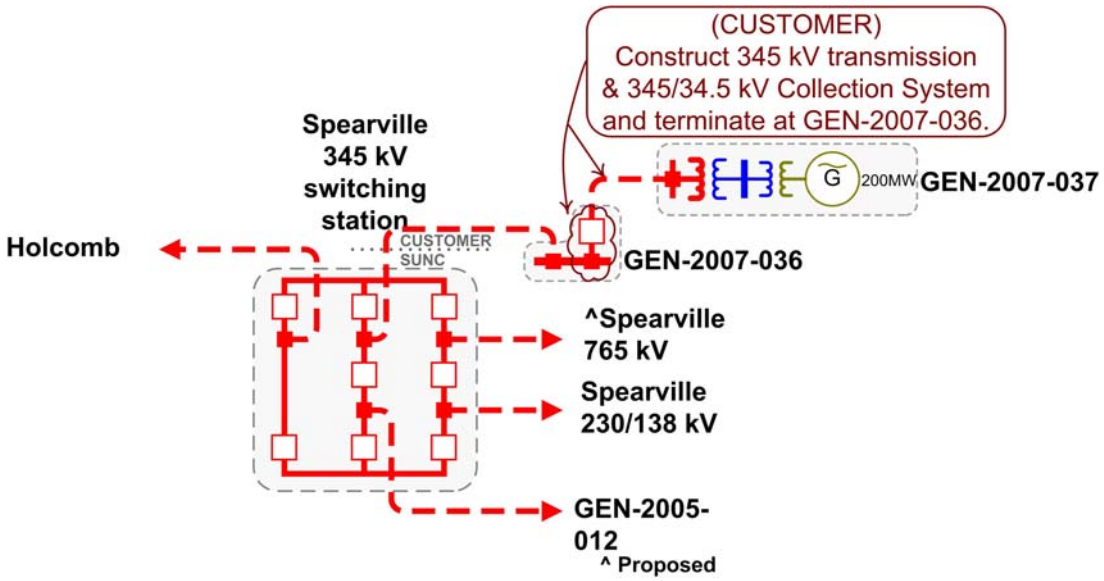

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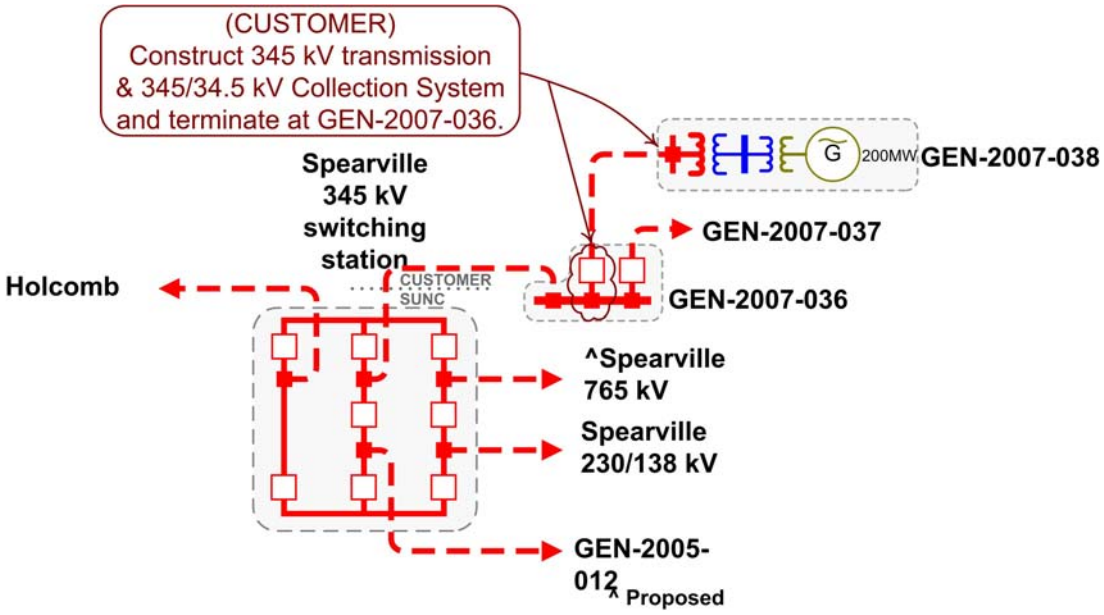

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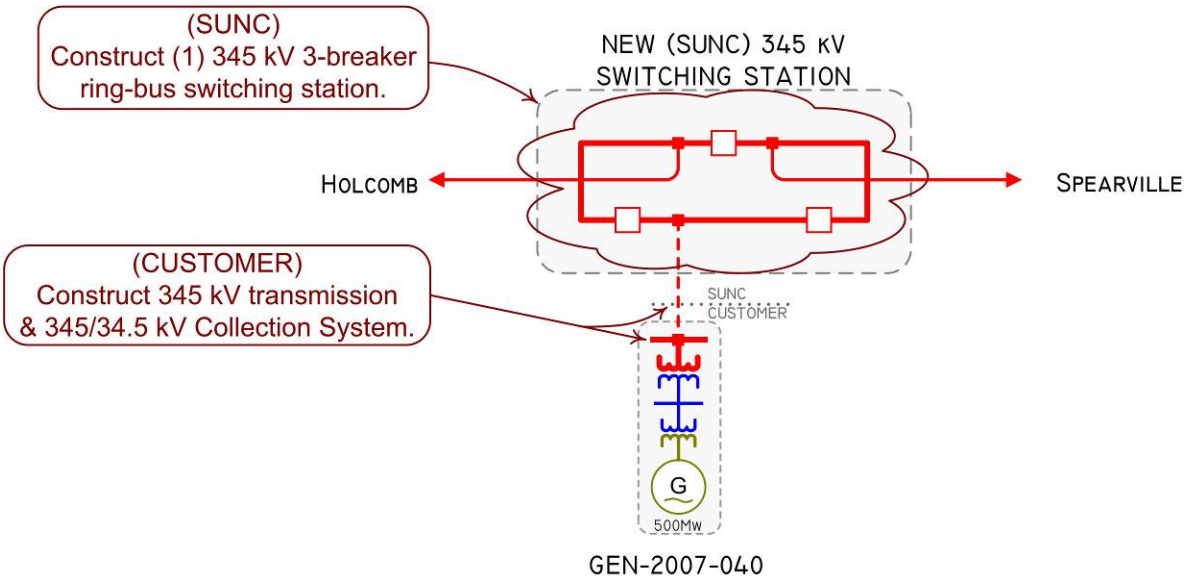
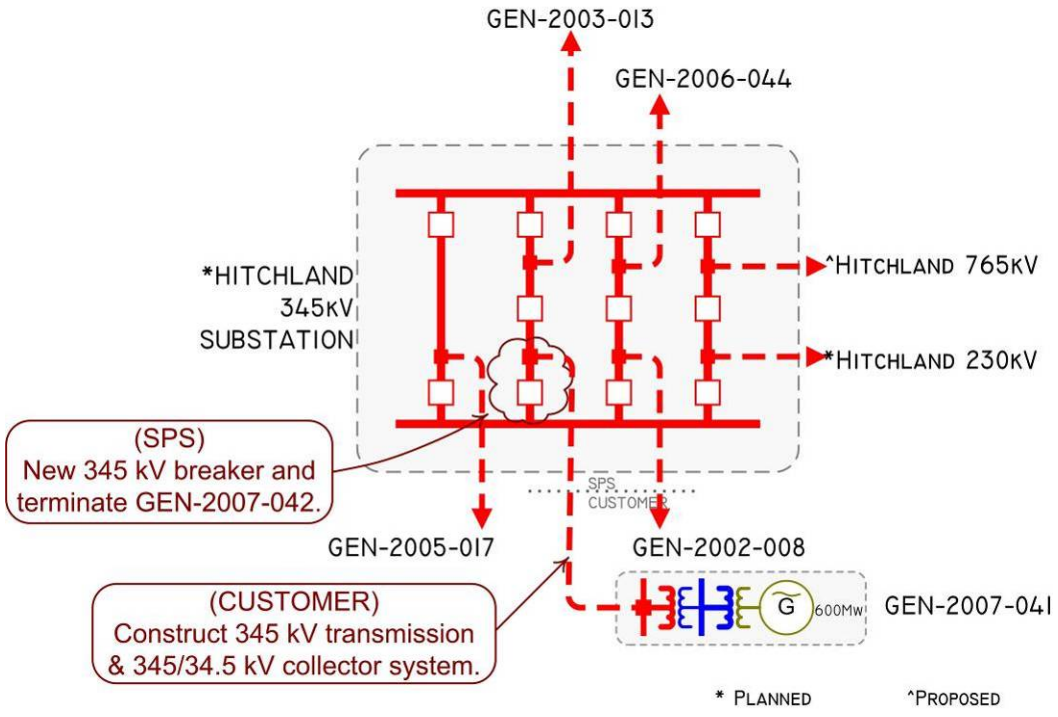


GEN-2007-040

GEN-2007-041



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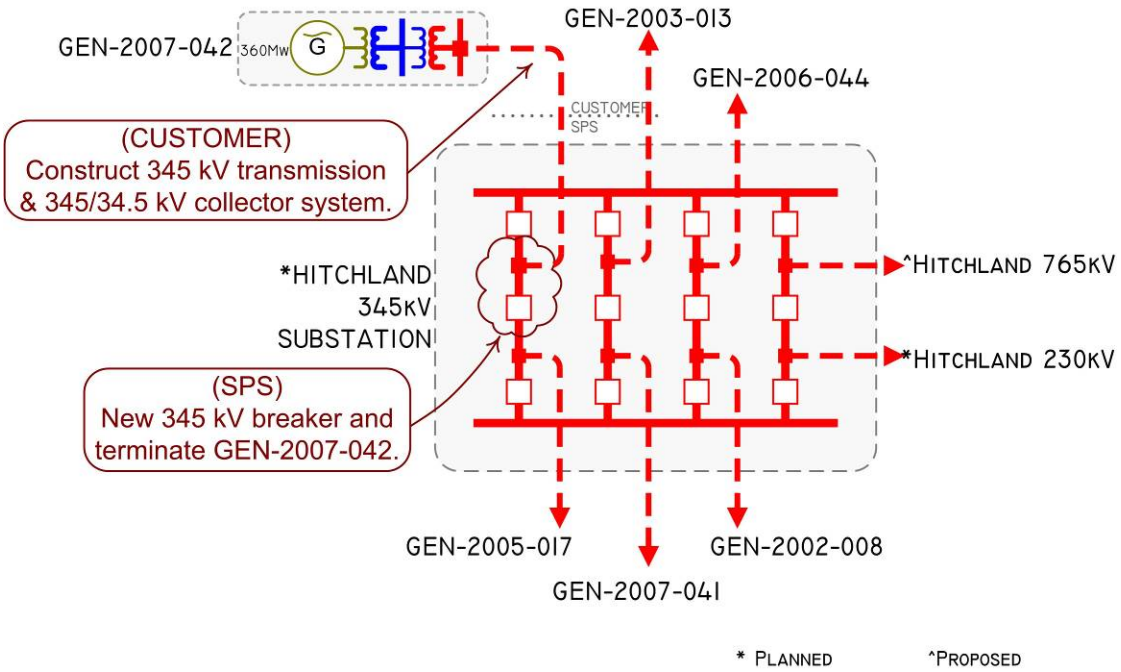

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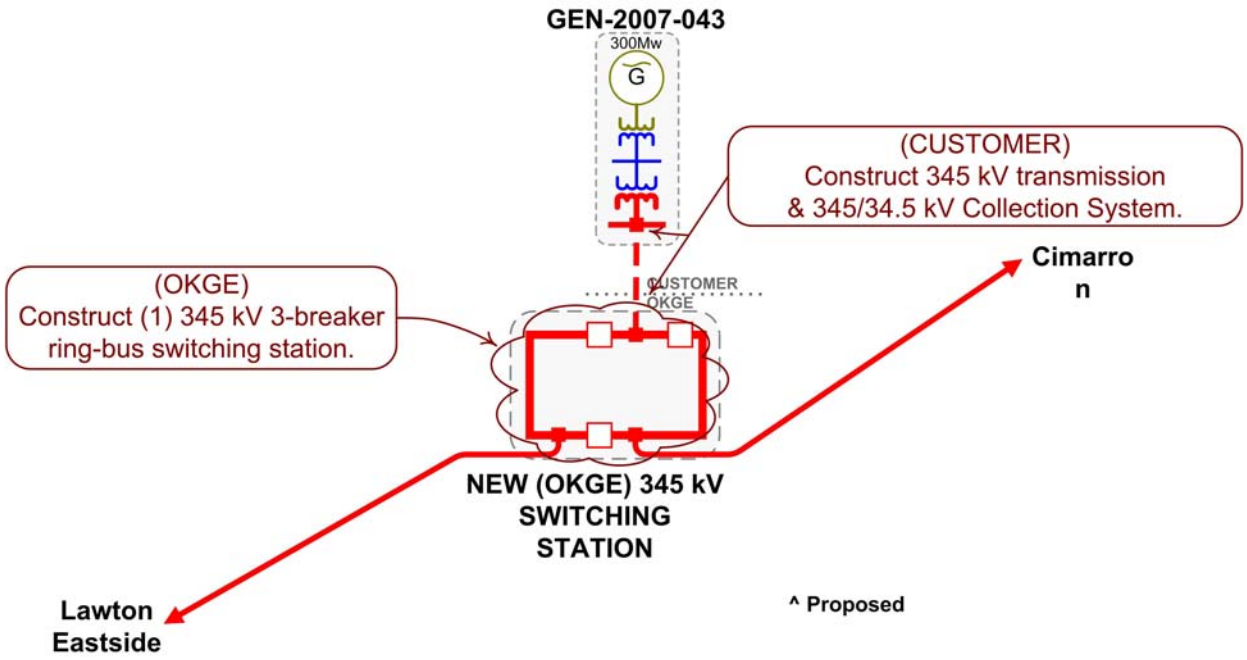
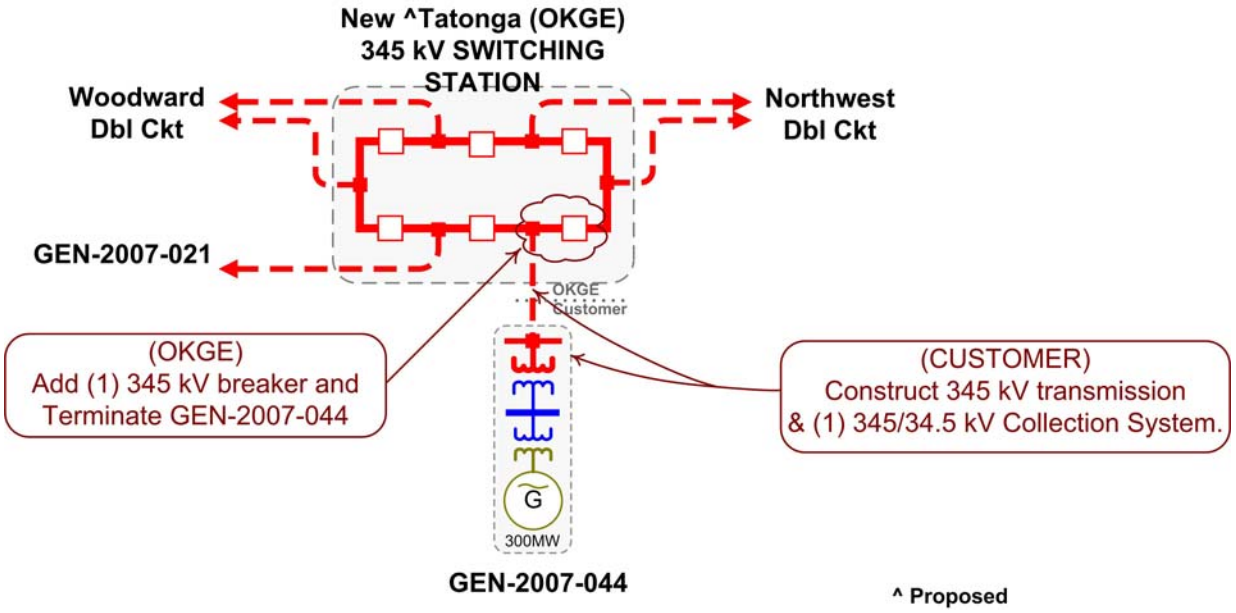


GEN-2007-044



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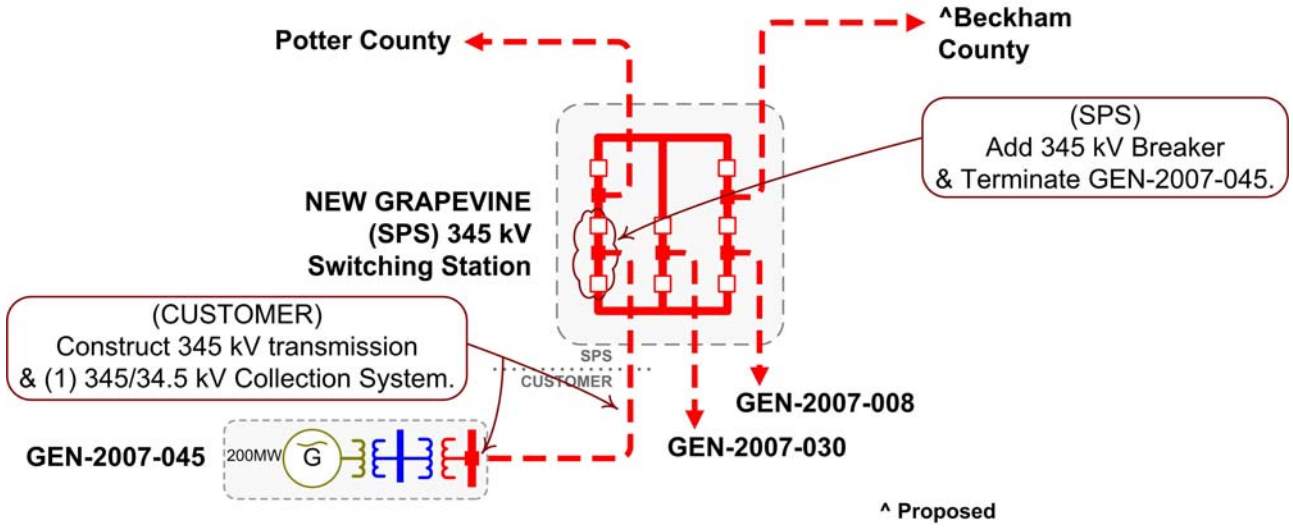

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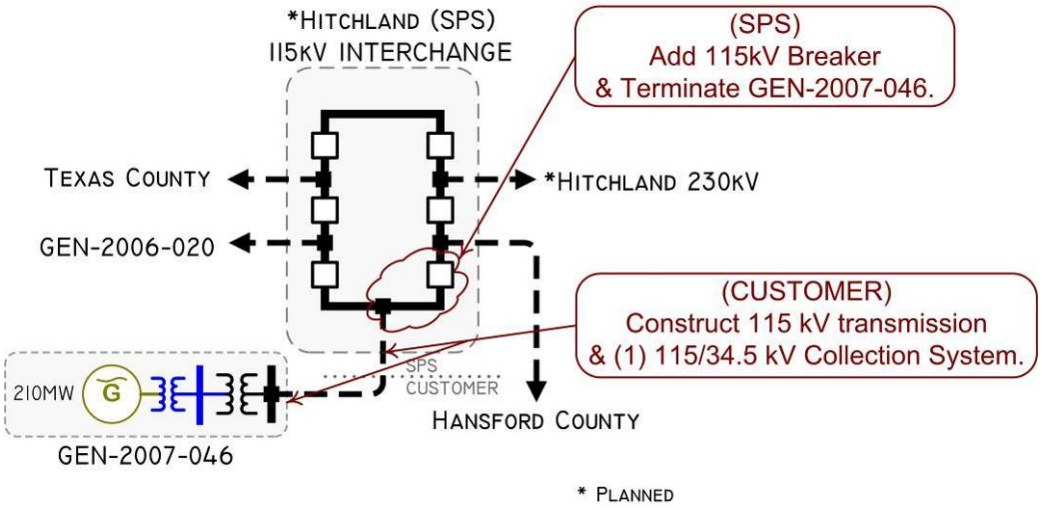

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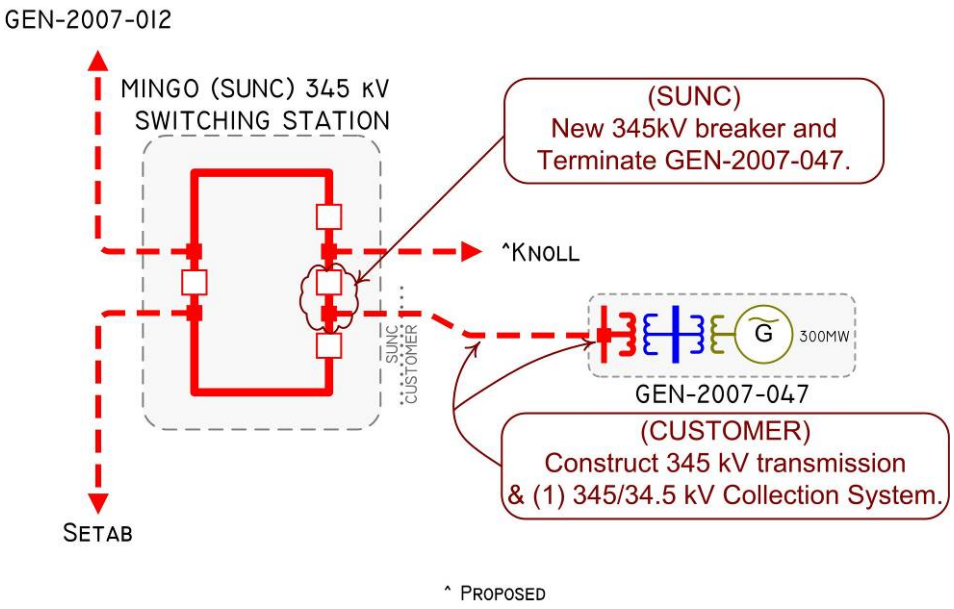

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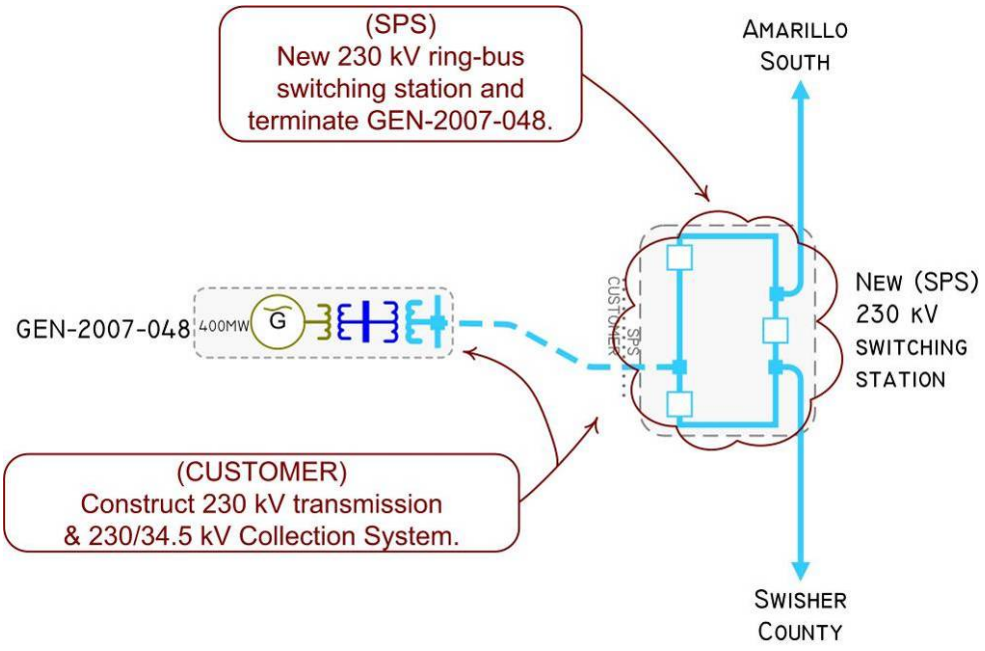

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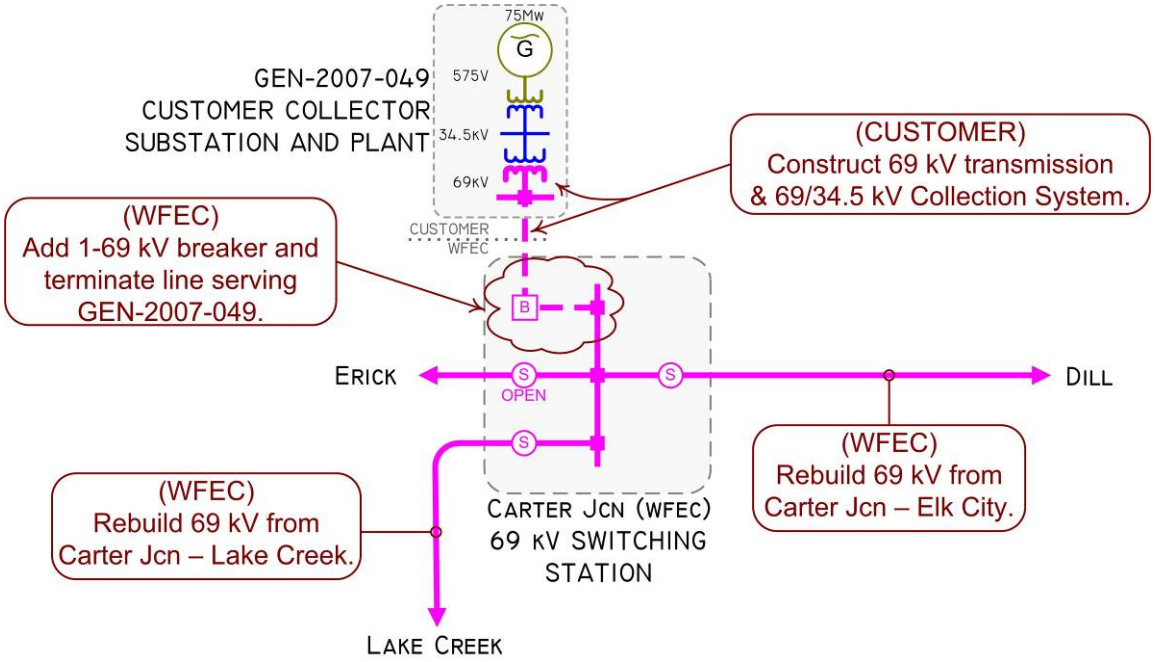

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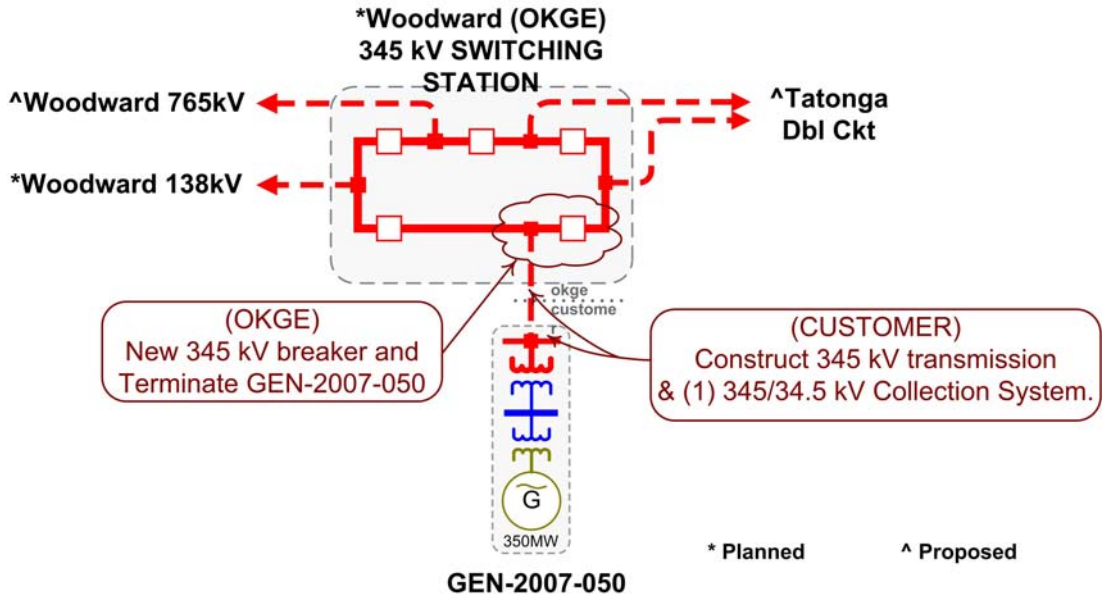

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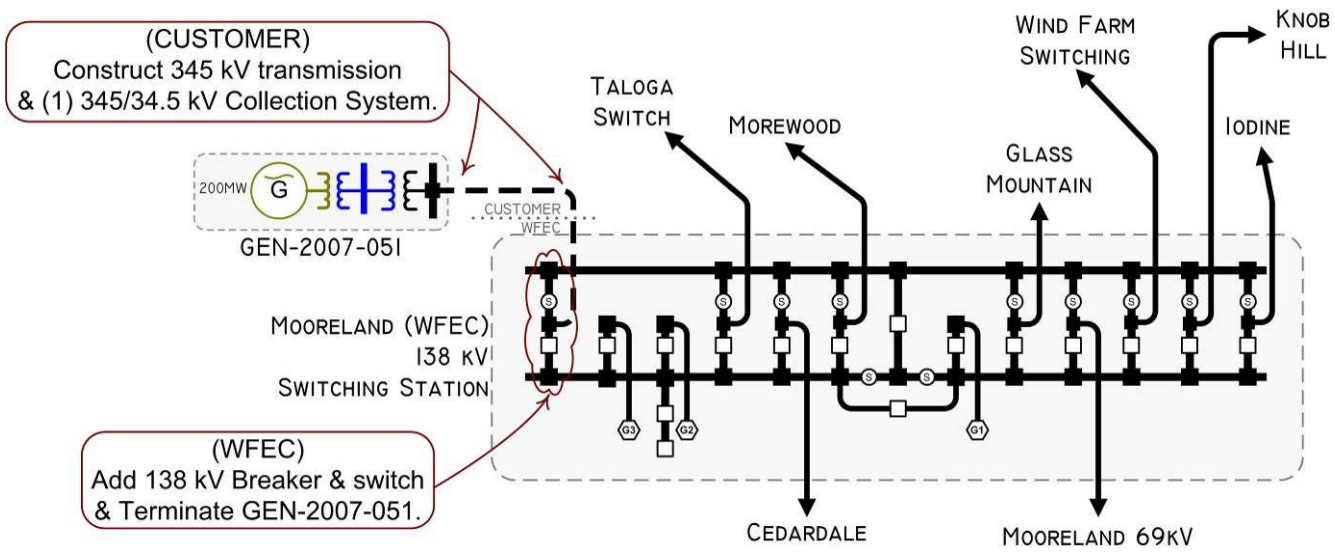

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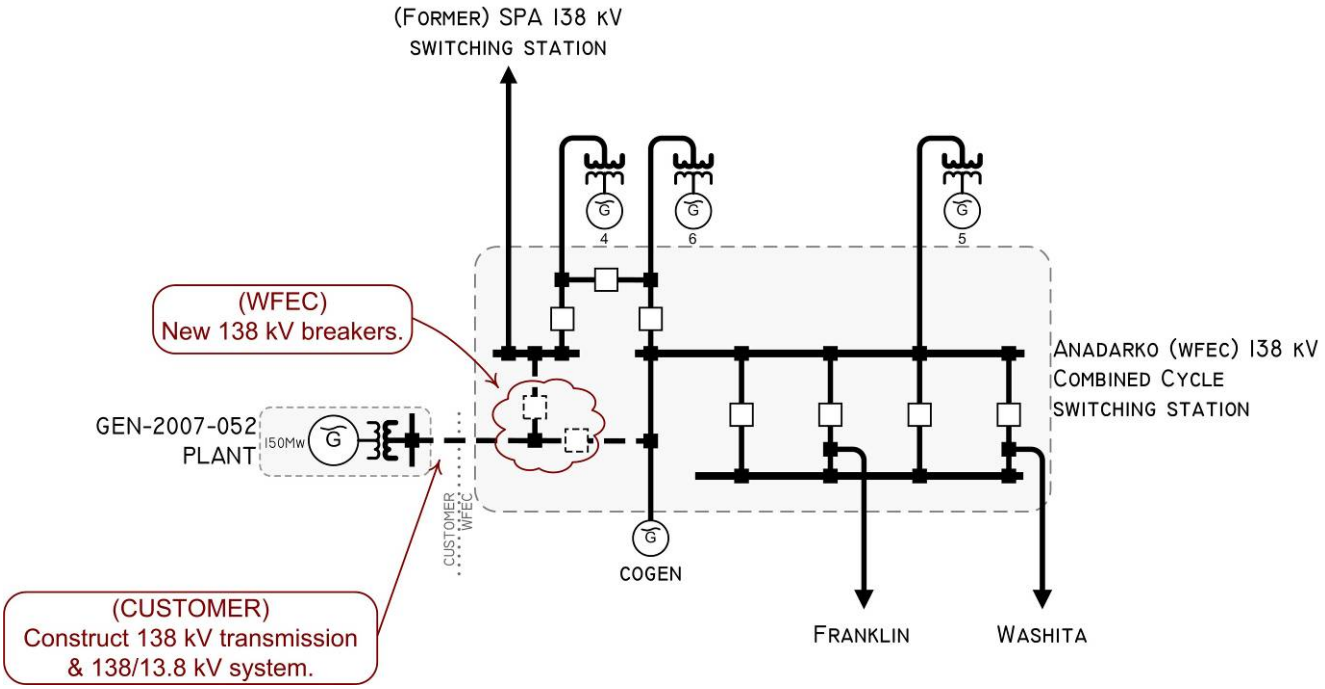
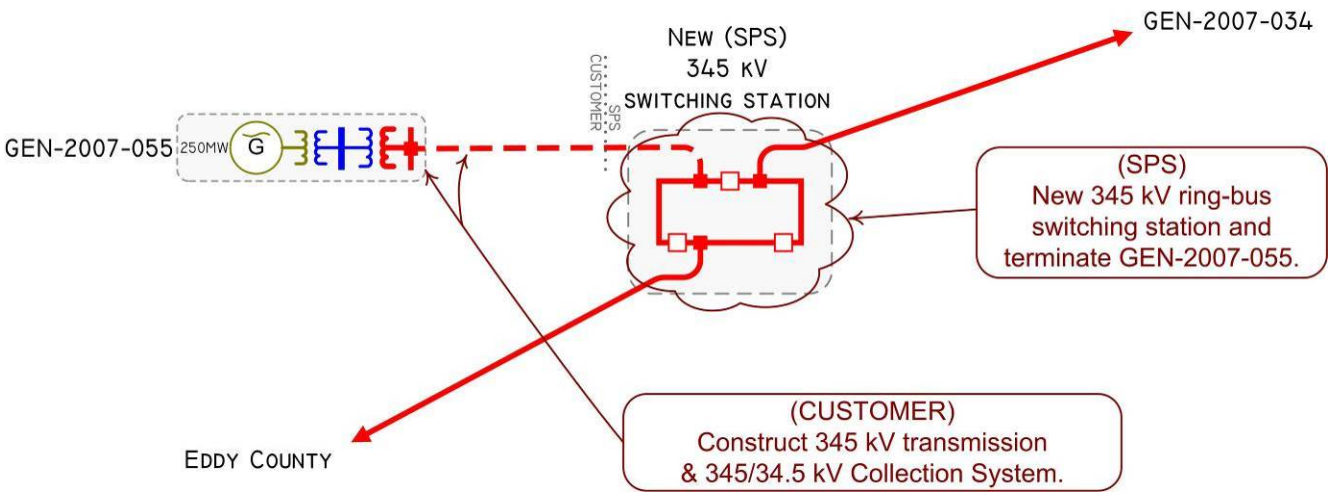


GEN-2007-053***

See GEN-2007-053 Feasibility Study report in Appendix J.

GEN-2007-055



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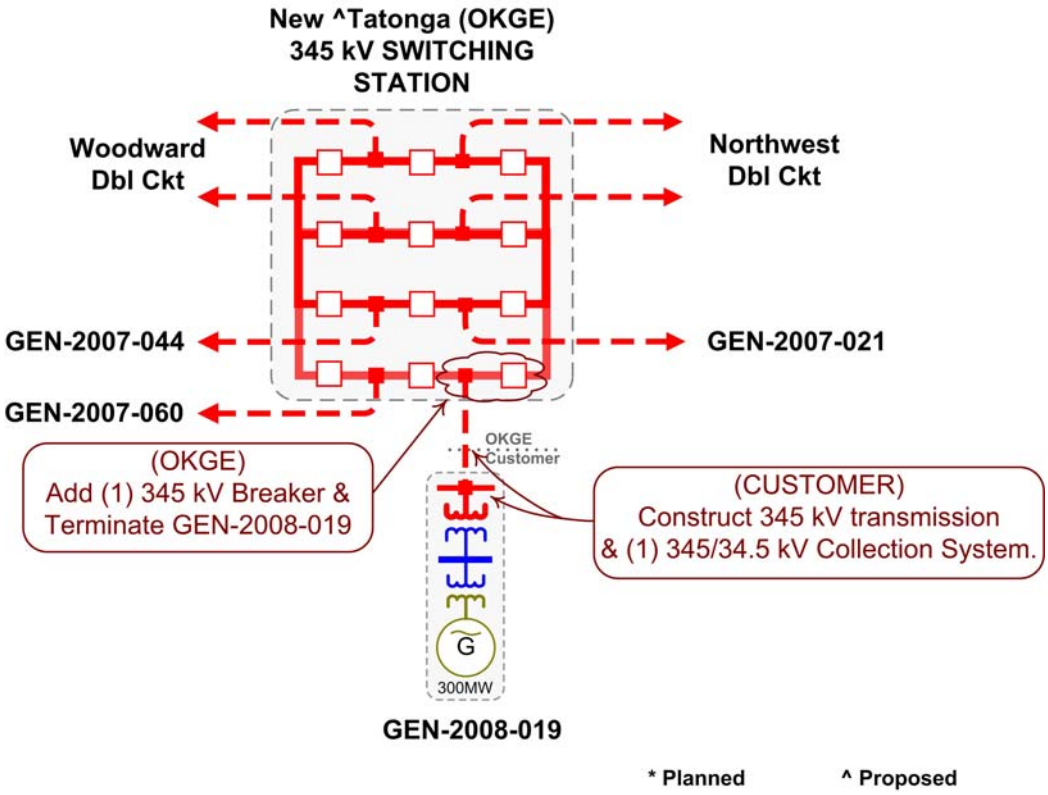

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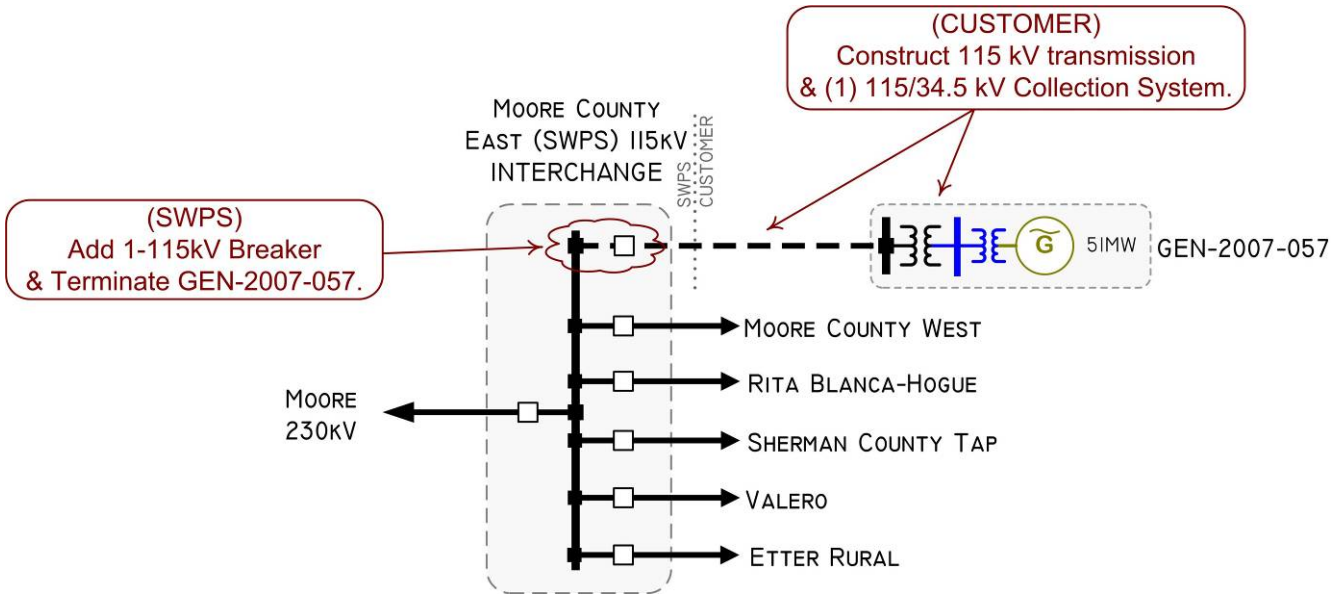

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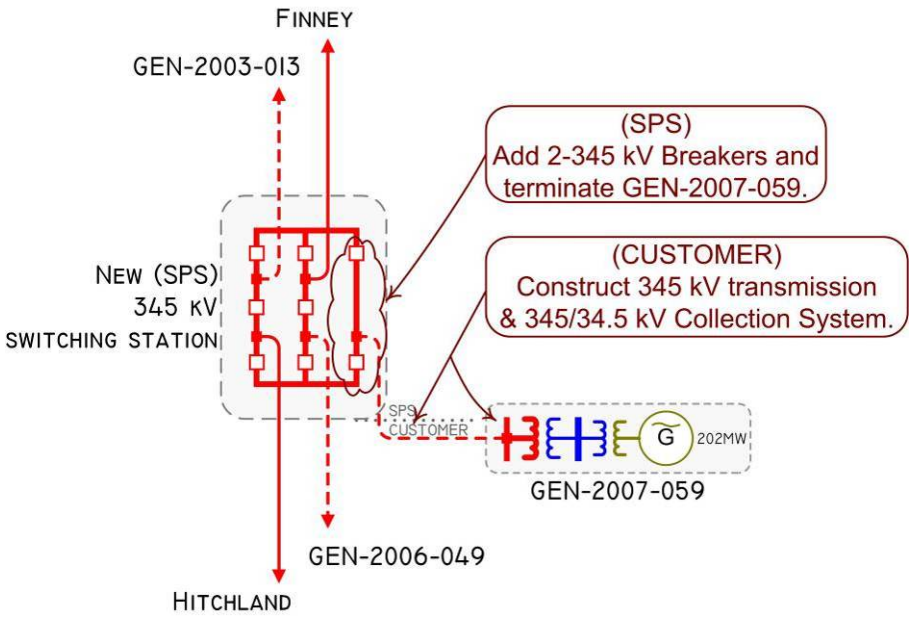

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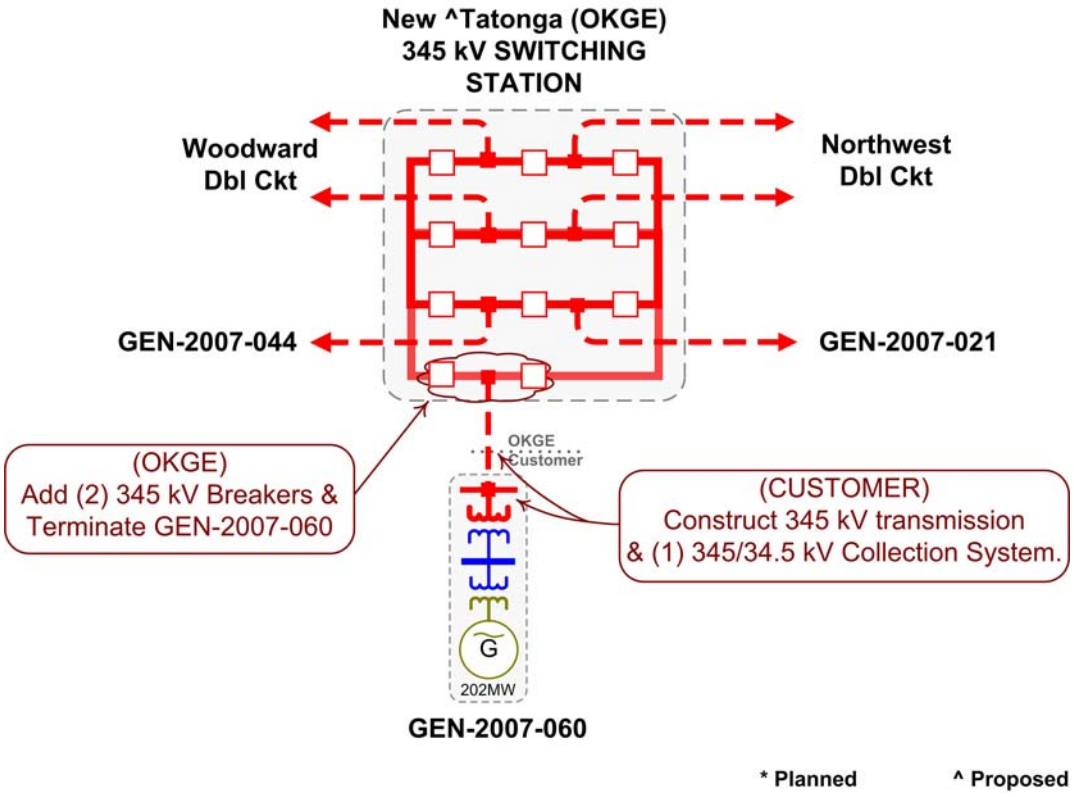
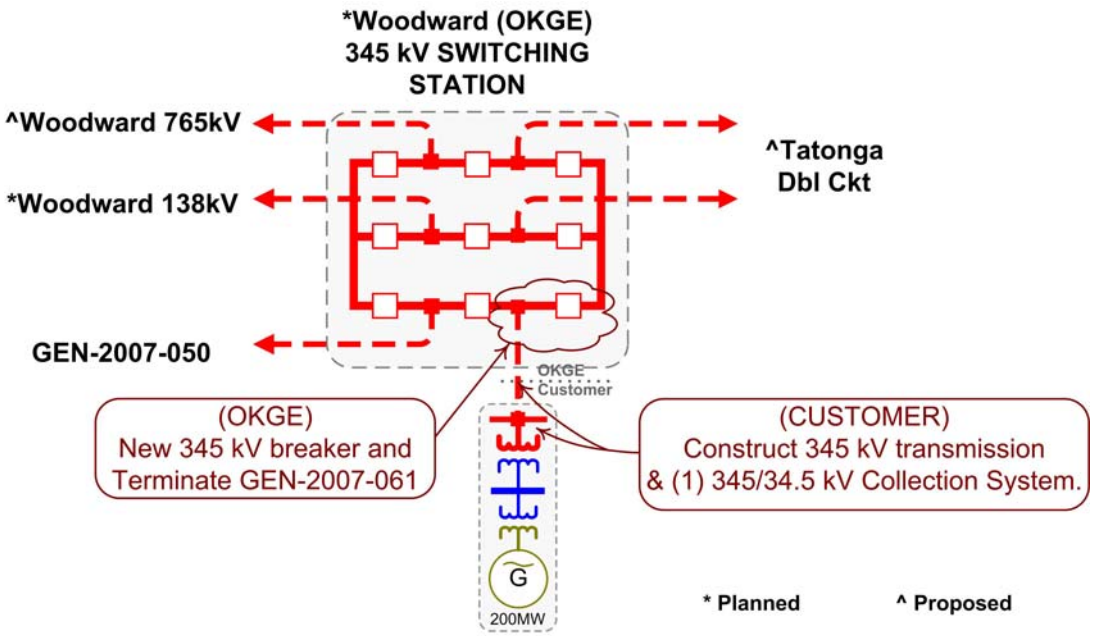
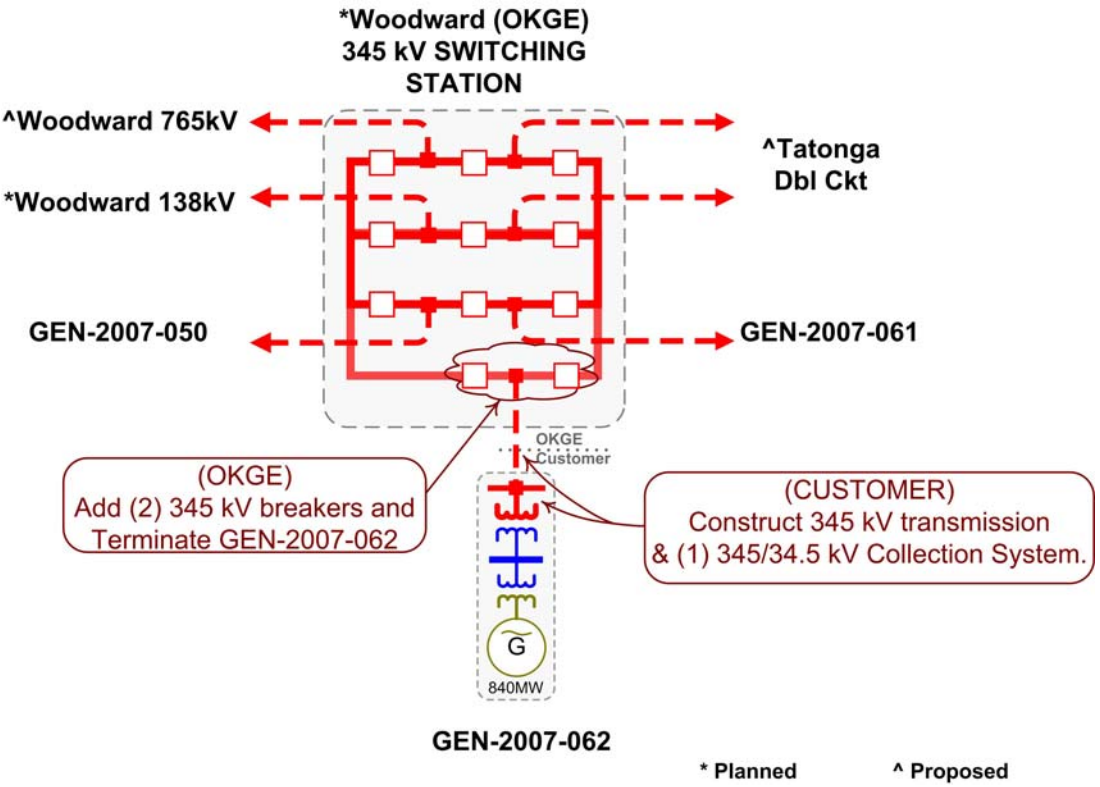


GEN-2007-061



GEN-2007-061

GEN-2007-062/063**



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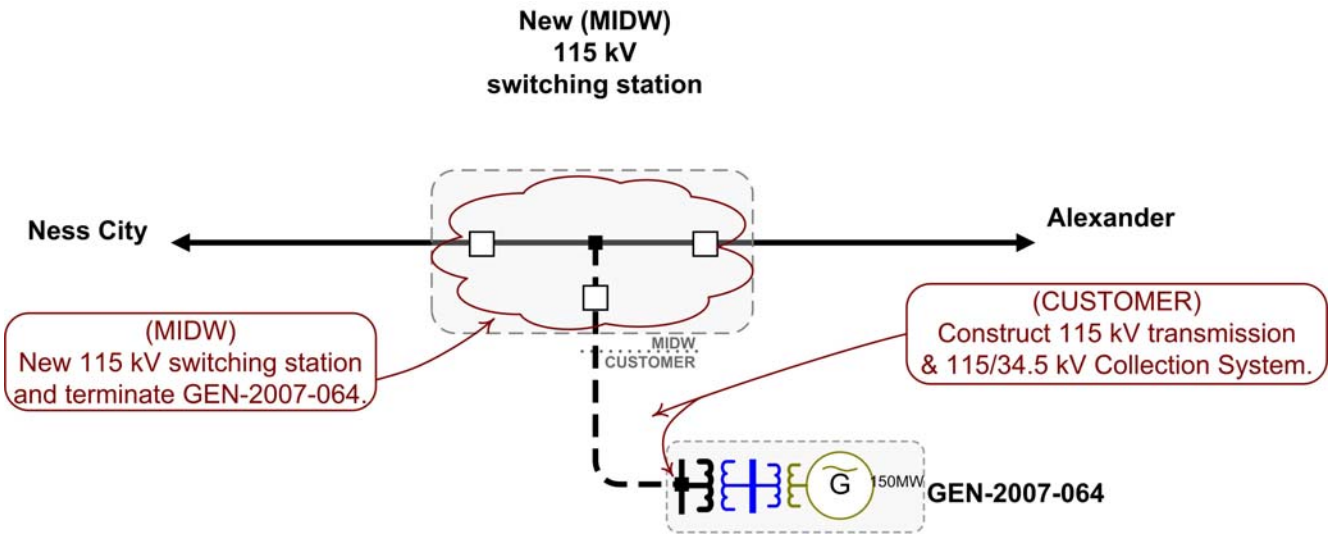
GEN-2007-064



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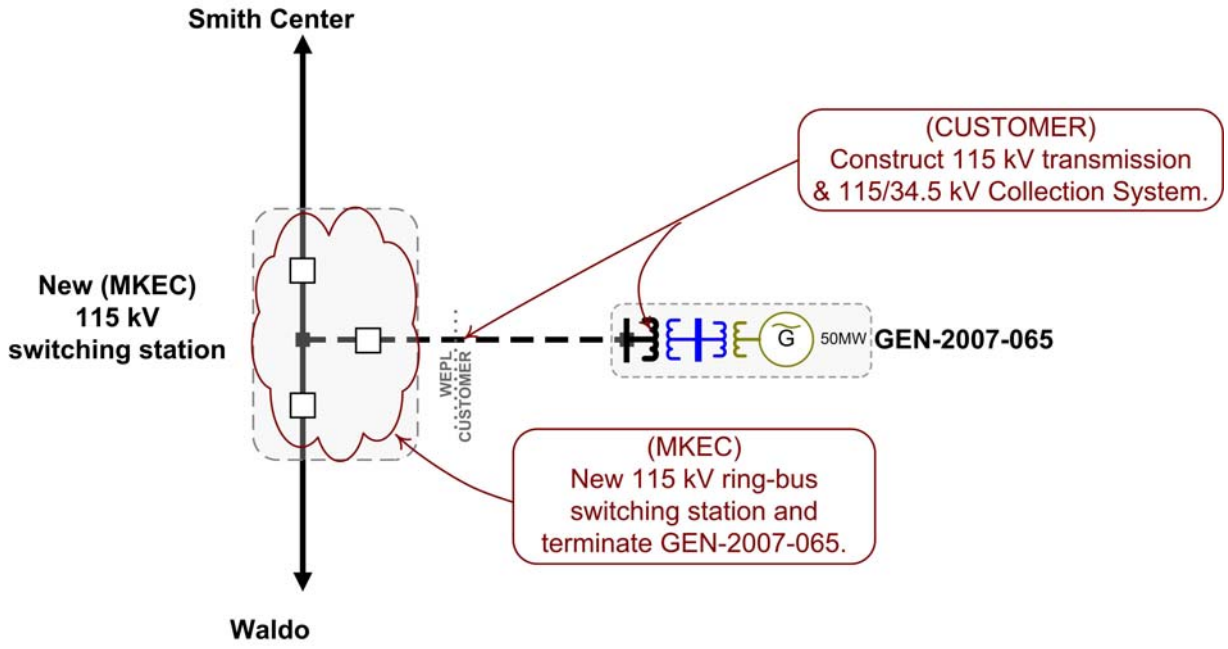

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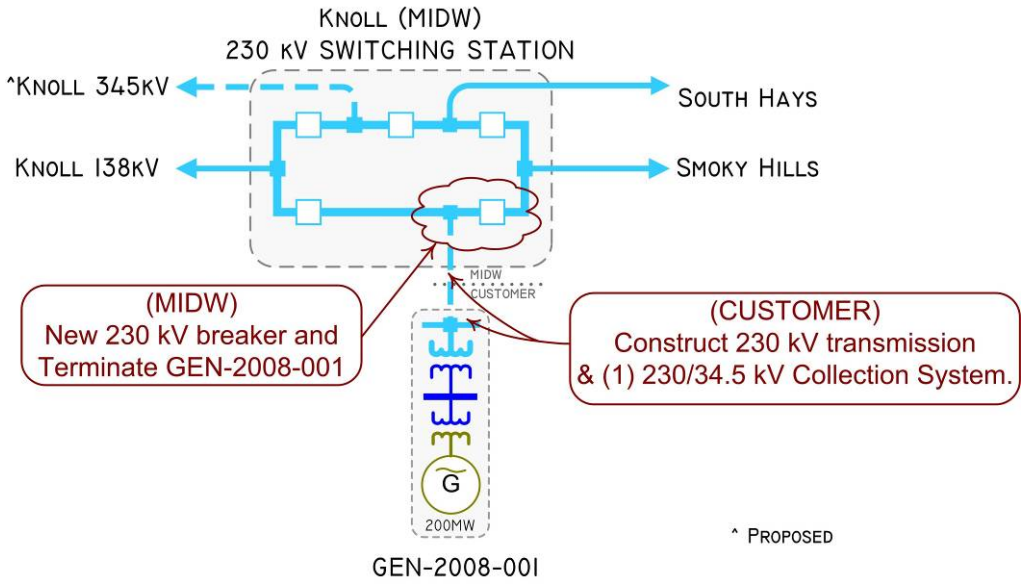

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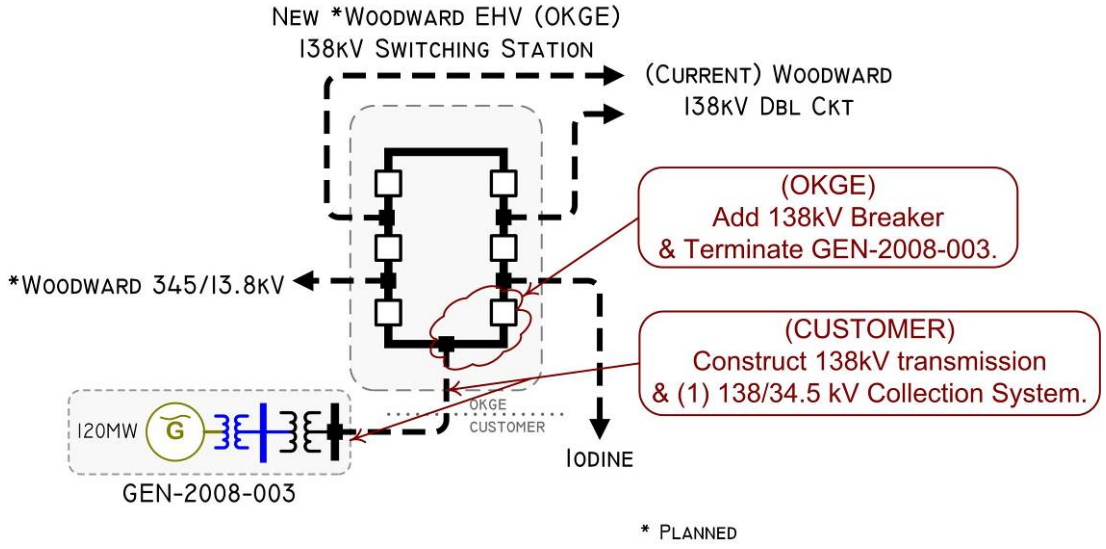

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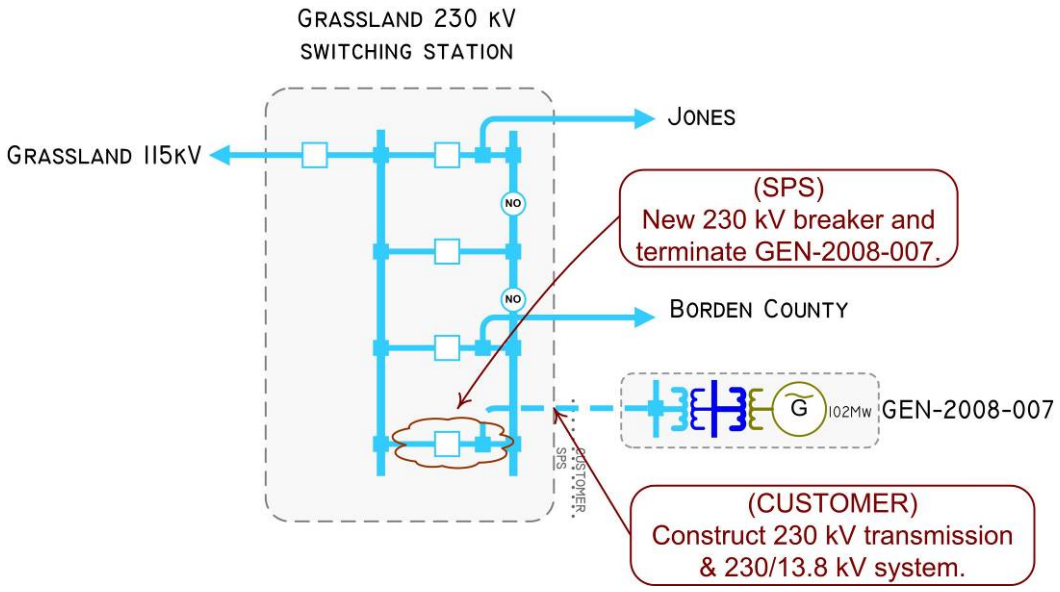

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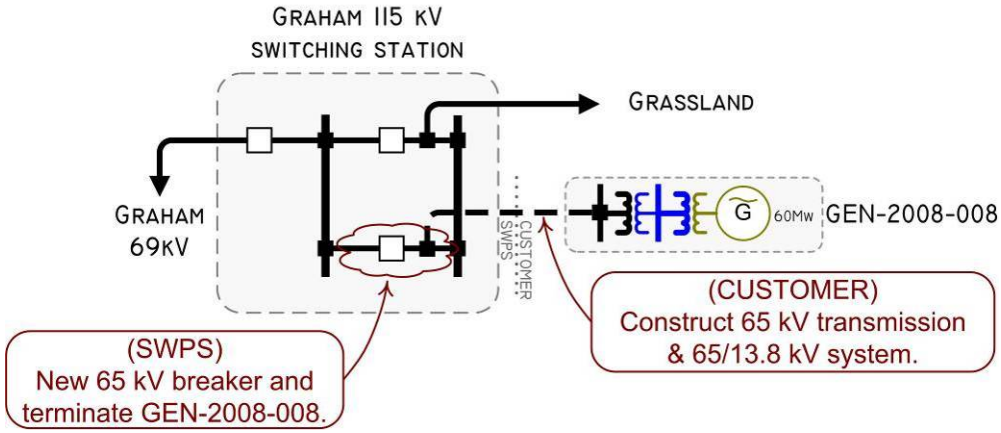

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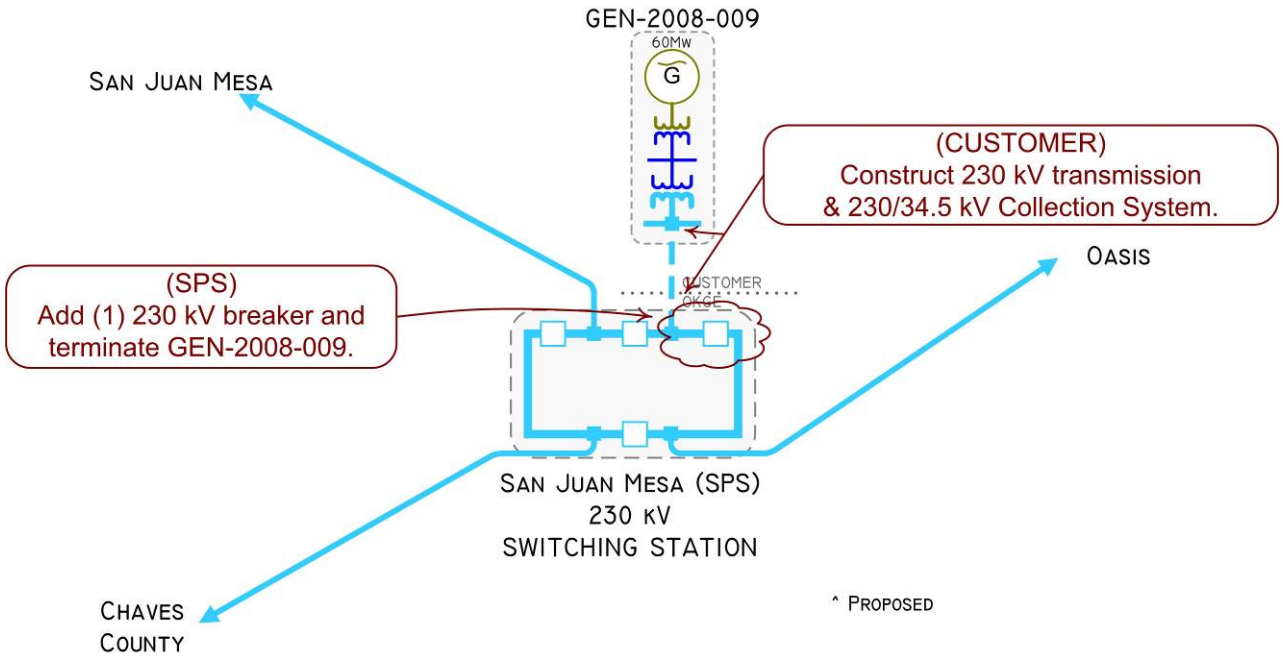
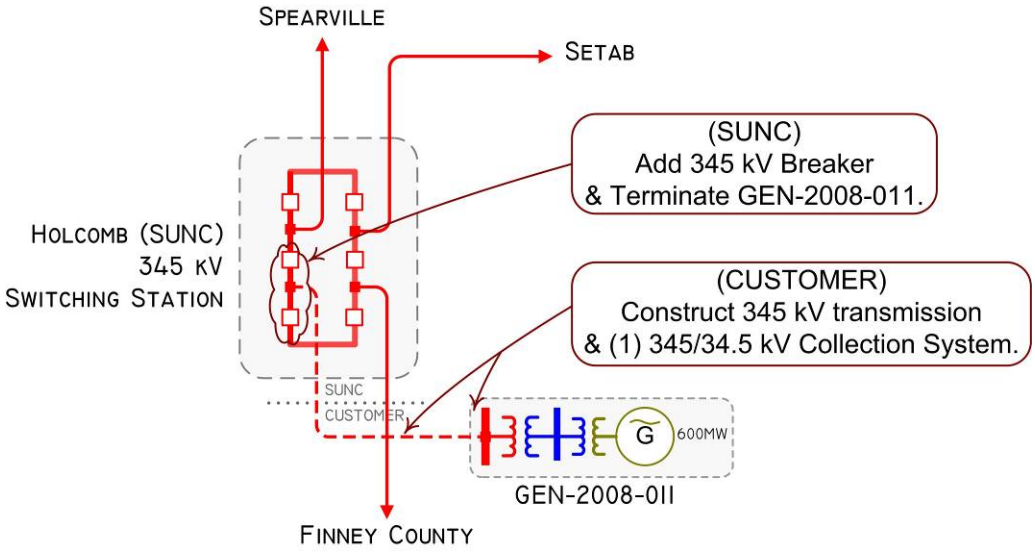


GEN-2008-010***

See GEN-2008-010 Feasibility Study report in Appendix J

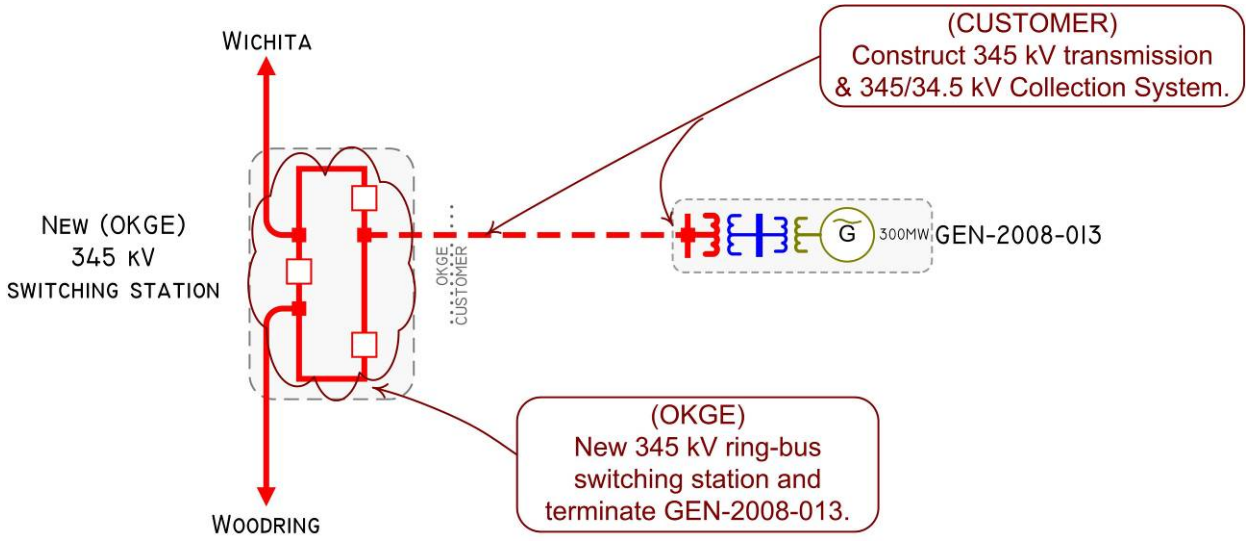
GEN-2008-011



GEN-2008-012***

See GEN-2008-012 Feasibility Study Report in Appendix J

GEN-2008-013



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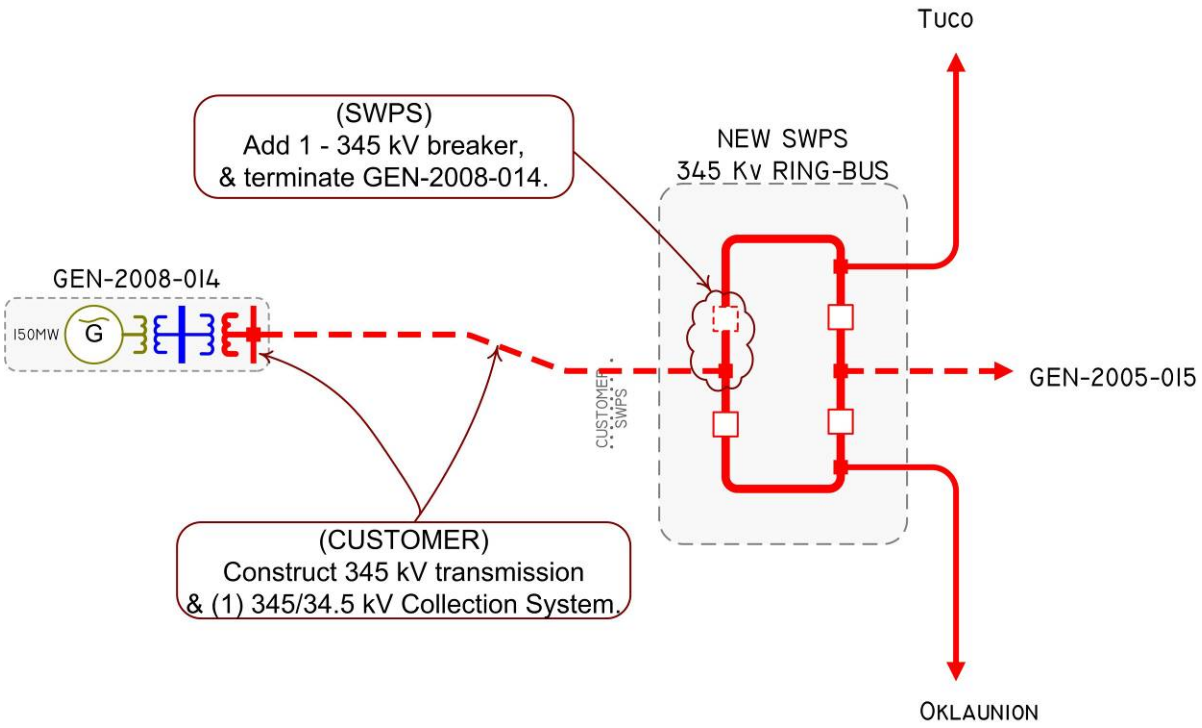

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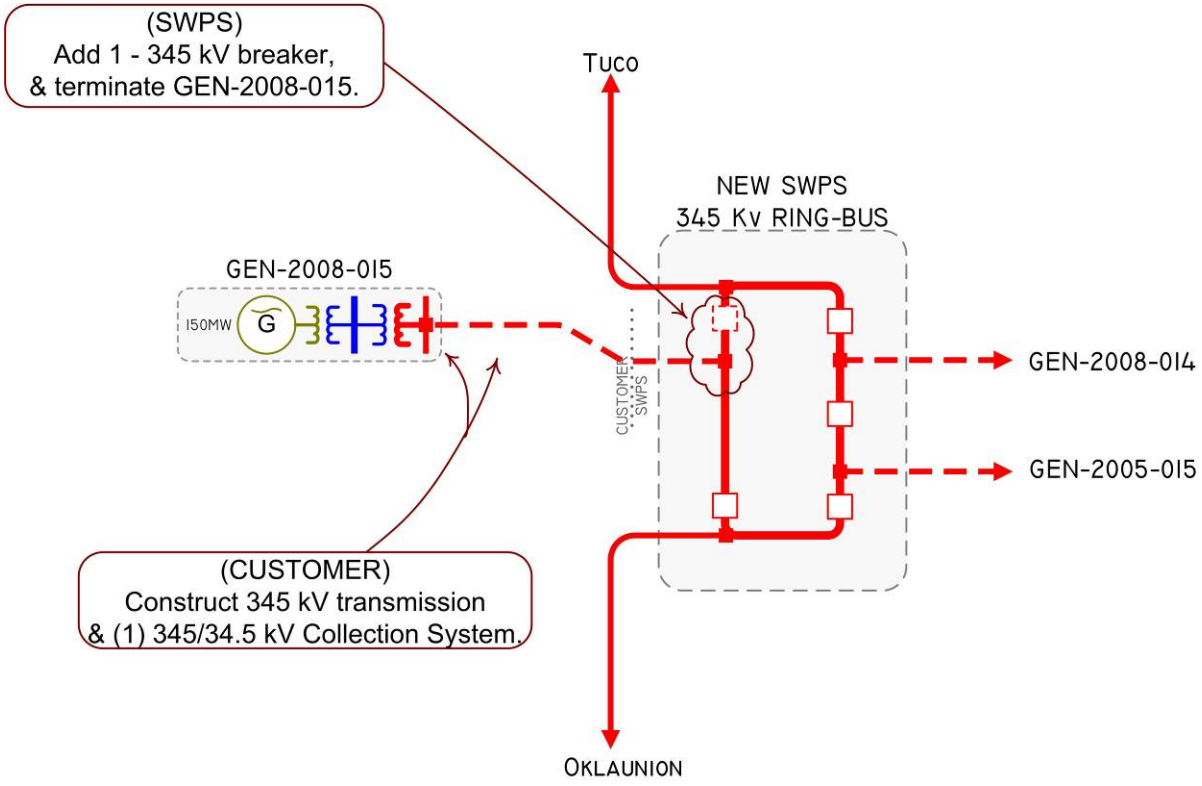

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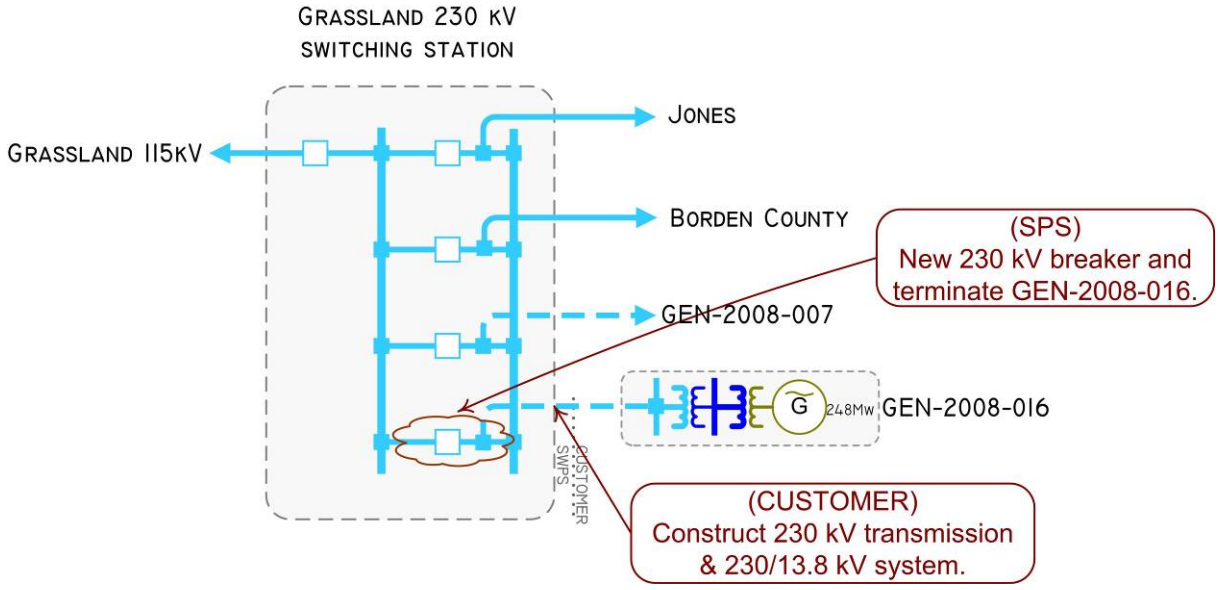

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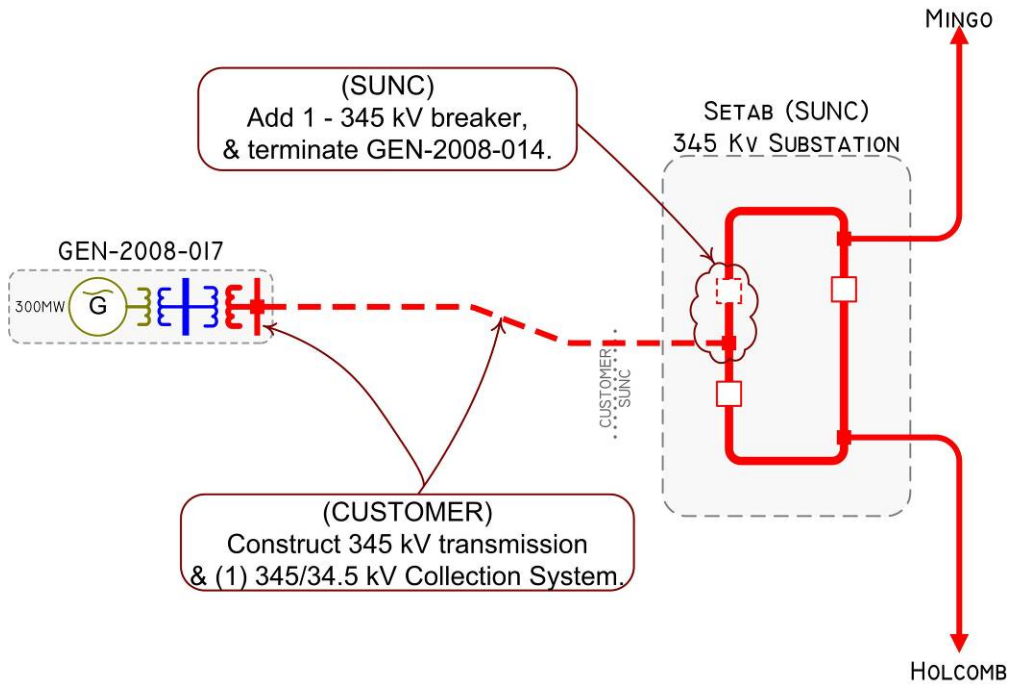

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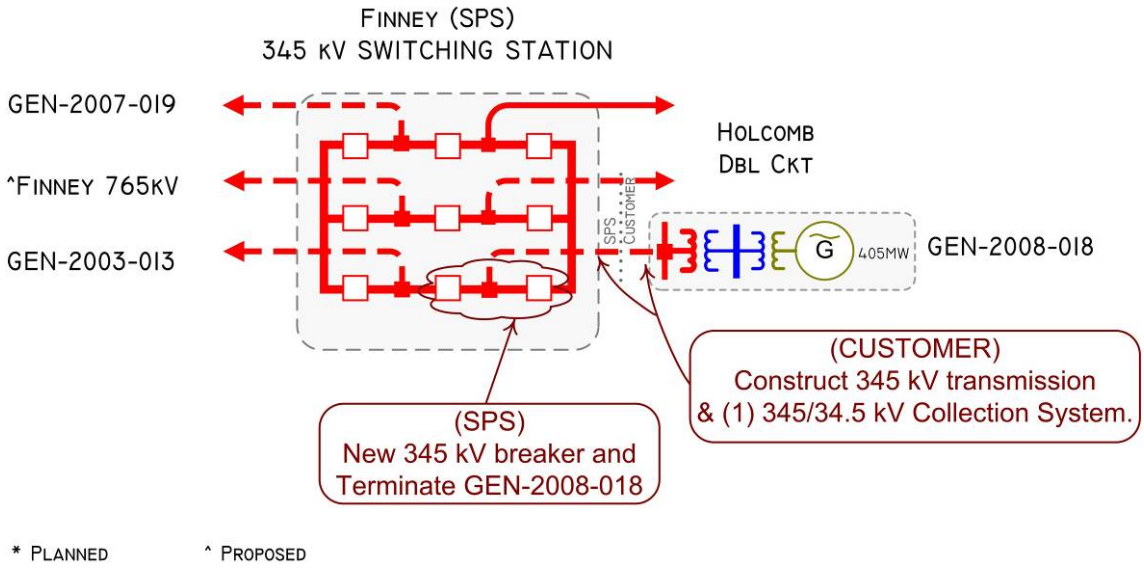

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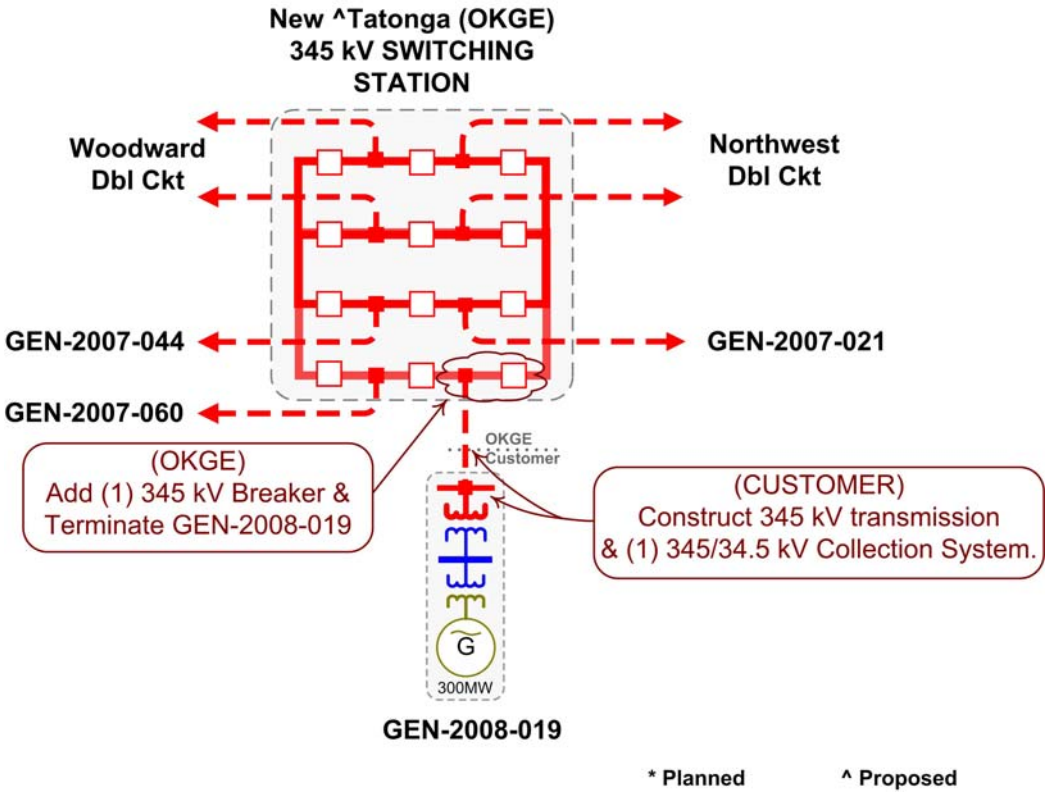

E: Cost Allocation per Interconnection Request

Appendix E.

Generation Interconnection Cost Allocation

Interconnection Request	Allocated Costs
G06-06	$37,126,927.91
G06-49GR	$83,766,632.01
G07-05GR	$53,001,454.07
G07-08GR	$77,095,875.16
G07-10GR	$32,243,853.74
G07-12	$47,720,529.62
G07-19GR	$62,475,766.61
G07-21	$11,741,473.46
G07-25	$51,280,890.00
G07-26GR	$21,889,569.85
G07-27GR	$11,644,179.39
G07-30GR	$52,230,583.44
G07-32GR	$2,325,330.97
G07-33GR	$48,934,080.35
G07-34GR	$28,391,441.00
G07-36	$42,144,016.58
G07-37	$39,144,016.58
G07-38	$39,144,016.58
G07-40	$87,206,524.22
G07-41	$147,336,270.99
G07-42	$89,201,762.59
G07-43	$6,890,504.53
G07-44	$16,209,137.78
G07-45GR	$54,717,112.61
G07-46	$49,704,827.65
G07-47	$34,520,783.37
G07-48GR	$64,534,842.48
G07-49GR	$637,324.53
G07-50	$23,783,891.79
G07-51	$12,519,648.60

Interconnection Request	Allocated Costs
G07-52	$808,802.61
G07-55GR	$42,990,379.76
G07-56	$370,840,677.47
G07-57	$14,177,521.34
G07-58	$85,589,298.33
G07-60	$11,776,516.57
G07-61	$15,233,652.45
G07-62	$55,981,340.29
G07-64	$25,837,283.15
G07-65	$6,471,640.76
G08-01	$37,166,934.80
G08-03	$10,851,163.47
G08-07	$15,343,630.29
G08-08GR	$12,175,770.04
G08-09GR	$9,669,717.23
G08-11	$114,348,210.79
G08-13	$6,087,887.20
G08-14	$13,532,596.86
G08-15	$14,532,596.86
G08-16	$36,675,378.07
G08-17	$52,759,487.68
G08-18	$77,972,284.92
G08-19	$18,724,960.59
All Upgrades Total	**$2,379,111,000.00**

F: Cost Allocation per Interconnection Request with Detail

Appendix F.
Generation Interconnection Cost Allocation

Interconnection Request		E + C Cost	Allocated Costs
G06-06			
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$1,042,263.04
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$4,575,699.89
	Comanche 765/345kV Transformer	$20,000,000.00	$337,081.68
	Finney - Spearville 765kV ckt1	$175,000,000.00	$5,188,075.07
	Finney 765/345kV Transformer	$20,000,000.00	$74,968.72
	GEN06-006 Interconnection Substation Cost	$1,500,000.00	$1,500,000.00
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$5,026,649.78
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$2,090,991.93
	Hitchland 765/345kV ckt1	$20,000,000.00	$276,410.86
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$1,480,420.45
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$7,723,982.00
	Spearville 765/345kV Transformer	$20,000,000.00	$1,592,045.25
	Spearville 765/345kV Transformer #2	$20,000,000.00	$3,152,076.18
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$996,169.58
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$1,020,304.04
	Woodward 765/345kV Transformer	$20,000,000.00	$330,799.84
	Woodward 765/345kV Transformer #2	$20,000,000.00	$718,989.59
G06-06	**Total**		**$37,126,927.91**
G06-49GR			
	Beckham 345/230kV Transformer	$10,000,000.00	$268,355.29
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$2,781,881.92
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$4,519,966.55
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$5,535.05
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$1,468,311.55
	Comanche - Medicine Lodge 345kV ckt 2	$60,000,000.00	$5,529,402.42
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$2,242,116.94
	Comanche 765/345kV Transformer	$20,000,000.00	$474,871.41
	Comanche 765/345kV Transformer #2	$20,000,000.00	$2,083,837.02
	Finney - Spearville 765kV ckt1	$175,000,000.00	$10,804,274.63
	Finney 765/345kV Transformer	$20,000,000.00	$1,328,811.62
	GEN06-049 Interconnection Substation	$1,500,000.00	$1,500,000.00

Interconnection Request		E + C Cost	Allocated Costs
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$1,341,776.46
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$3,942,231.67
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$14,508,641.21
	Hitchland 765/345kV ckt1	$20,000,000.00	$314,376.68
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$516,373.26
	Knoll 345/230kV Transformer	$10,000,000.00	$357,447.38
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$2,150,912.64
	Medicine Lodge - Wichita 345kV ckt 2	$90,000,000.00	$7,389,790.83
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$3,931,921.20
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$1,605,342.28
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$9,442,187.49
	Spearville 765/345kV Transformer	$20,000,000.00	$380,691.53
	Sunnyside - LES 345kV ckt1	$200,000.00	$5,055.38
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$1,581,071.09
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$1,624,924.78
	Woodward 765/345kV Transformer	$20,000,000.00	$525,139.41
	Woodward 765/345kV Transformer #2	$20,000,000.00	$1,141,384.37
G06-49GR	**Total**		**$83,766,632.01**
G07-05GR			
	Beckham 345/230kV Transformer	$10,000,000.00	$311,566.80
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$3,801,838.98
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$4,668,247.46
	Cimarron 345kV CB	$3,200,000.00	$55,173.94
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$600,502.16
	Comanche - Medicine Lodge 345kV ckt 2	$60,000,000.00	$2,261,385.26
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$977,158.25
	Comanche 765/345kV Transformer	$20,000,000.00	$194,210.35
	Comanche 765/345kV Transformer #2	$20,000,000.00	$852,236.45
	Finney - Spearville 765kV ckt1	$175,000,000.00	$3,107,245.28
	Finney 765/345kV Transformer	$20,000,000.00	$130,202.14
	GEN07-005 Interconnection Substation	$600,000.00	$600,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$1,557,834.00
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$5,162,292.29
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$8,468,324.11
	Hitchland 765/345kV ckt1	$20,000,000.00	$490,703.50
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$805,995.42

Interconnection Request		E + C Cost	Allocated Costs
	Hutchinson - Riverview 115kV ckt1	$4,250,000.00	$3,319,587.91
	Knoll 345/230kV Transformer	$10,000,000.00	$92,077.19
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$878,418.54
	Medicine Lodge - Wichita 345kV ckt 2	$90,000,000.00	$3,017,941.87
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$1,012,849.12
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$1,817,852.46
	Pringle - Hutchinson 115kV ckt1	$4,250,000.00	$4,250,000.00
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$1,090,900.75
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$1,670,710.69
	Spearville 765/345kV Transformer	$20,000,000.00	$177,495.62
	Sunnyside - LES 345kV ckt1	$200,000.00	$4,655.16
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$533,482.55
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$553,014.71
	Woodward 765/345kV Transformer	$20,000,000.00	$169,388.08
	Woodward 765/345kV Transformer #2	$20,000,000.00	$368,163.02
G07-05GR	**Total**		**$53,001,454.07**
G07-08GR			
	Beckham 345/230kV Transformer	$10,000,000.00	$1,487,405.26
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$17,847,508.07
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$23,095,728.34
	Cimarron 345kV CB	$3,200,000.00	$221,171.72
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$520,415.17
	Comanche 765/345kV Transformer	$20,000,000.00	$168,309.16
	Finney 765/345kV Transformer	$20,000,000.00	$379,918.84
	GEN07-008 Interconnection Substation	$2,500,000.00	$2,500,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$7,437,026.28
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$4,668,368.43
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$5,459,471.95
	Hitchland 765/345kV ckt1	$20,000,000.00	$743,040.90
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$746,284.72
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$9,083,741.77
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$1,213,740.22
	Spearville 765/345kV Transformer	$20,000,000.00	$333,381.83
	Sunnyside - LES 345kV ckt1	$200,000.00	$11,647.03
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$429,281.29
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$455,440.43

Interconnection Request		E + C Cost	Allocated Costs
	Woodward 765/345kV Transformer	$20,000,000.00	$293,993.74
G07-08GR	**Total**		**$77,095,875.16**
G07-10GR			
	Beckham 345/230kV Transformer	$10,000,000.00	$398,653.65
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$5,149,515.06
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$5,634,024.49
	Cimarron 345kV CB	$3,200,000.00	$96,739.99
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$452,574.13
	Comanche 765/345kV Transformer	$20,000,000.00	$146,368.47
	Finney 765/345kV Transformer	$20,000,000.00	$294,560.70
	GEN07-010 Interconnection Substation	$500,000.00	$500,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$1,993,268.26
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$3,619,504.21
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$5,731,163.03
	Hitchland 765/345kV ckt1	$20,000,000.00	$674,548.21
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$653,359.10
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$2,422,972.23
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$1,827,005.51
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$1,055,517.69
	Spearville 765/345kV Transformer	$20,000,000.00	$289,922.35
	Sunnyside - LES 345kV ckt1	$200,000.00	$6,578.19
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$484,832.06
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$504,122.04
	Woodward 765/345kV Transformer	$20,000,000.00	$308,624.36
G07-10GR	**Total**		**$32,243,853.74**
G07-12			
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$689,228.93
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$2,831,274.75
	Comanche 765/345kV Transformer	$20,000,000.00	$222,905.77
	Finney - Spearville 765kV ckt1	$175,000,000.00	$3,840,642.58
	Finney 765/345kV Transformer	$20,000,000.00	$850,205.30
	GEN07-012 Interconnection Substation	$6,275,000.00	$6,275,000.00
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$5,964,666.01
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$3,467,858.20
	Hitchland 765/345kV ckt1	$20,000,000.00	$263,126.36
	Knoll 345/230kV Transformer	$10,000,000.00	$1,299,917.63

Interconnection Request		E + C Cost	Allocated Costs
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$995,489.33
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$14,299,093.93
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$4,882,820.64
	Spearville 765/345kV Transformer	$20,000,000.00	$554,577.56
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$757,238.30
	Woodward 765/345kV Transformer	$20,000,000.00	$526,484.34
G07-12	**Total**		**$47,720,529.62**
G07-19GR			
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$1,576,909.80
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$4,312,008.04
	Comanche 765/345kV Transformer	$20,000,000.00	$509,993.52
	Finney - Spearville 765kV ckt1	$175,000,000.00	$9,404,921.56
	Finney 765/345kV Transformer	$20,000,000.00	$1,641,875.53
	GEN07-019 Interconnection Substation	$6,200,000.00	$6,200,000.00
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$9,393,712.54
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$8,694,958.34
	Hitchland 765/345kV ckt1	$20,000,000.00	$201,985.24
	Knoll 345/230kV Transformer	$10,000,000.00	$364,737.23
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$2,242,841.45
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$4,012,109.57
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$8,665,705.64
	Spearville 765/345kV Transformer	$20,000,000.00	$227,043.27
	Spearville 765/345kV Transformer #2	$20,000,000.00	$449,520.95
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$1,488,997.60
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$1,524,501.36
	Woodward 765/345kV Transformer	$20,000,000.00	$492,815.73
	Woodward 765/345kV Transformer #2	$20,000,000.00	$1,071,129.22
G07-19GR	**Total**		**$62,475,766.61**
G07-21			
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$12,364.53
	Cimarron 345kV CB	$3,200,000.00	$60,260.65
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$1,128,711.91
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$2,275,706.28
	Comanche 765/345kV Transformer	$20,000,000.00	$365,040.39
	GEN07-021 Interconnection Substation	$2,500,000.00	$2,500,000.00
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$1,650,346.97

Interconnection Request		E + C Cost	Allocated Costs
	Sunnyside - LES 345kV ckt1	$200,000.00	$1,330.64
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$2,497,890.88
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$973,208.10
	Woodward 765/345kV Transformer	$20,000,000.00	$276,613.10
G07-21	**Total**		**$11,741,473.46**
G07-25			
	Cimarron 345kV CB	$3,200,000.00	$63,471.59
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$1,840,385.48
	Comanche - Medicine Lodge 345kV ckt 2	$60,000,000.00	$6,930,567.25
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$7,421,161.68
	Comanche 765/345kV Transformer	$20,000,000.00	$1,190,410.10
	GEN07-025 Interconnection Substation	$6,000,000.00	$6,000,000.00
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$5,555,102.92
	Medicine Lodge - Wichita 345kV ckt 2	$90,000,000.00	$19,085,409.59
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$1,106,345.50
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$1,202,865.03
	Woodward 765/345kV Transformer	$20,000,000.00	$885,170.87
G07-25	**Total**		**$51,280,890.00**
G07-26GR			
	Beckham 345/230kV Transformer	$10,000,000.00	$259,124.87
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$3,347,184.79
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$3,662,115.92
	Cimarron 345kV CB	$3,200,000.00	$62,880.99
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$294,173.18
	Comanche 765/345kV Transformer	$20,000,000.00	$95,139.51
	Finney 765/345kV Transformer	$20,000,000.00	$191,464.45
	GEN07-026 Interconnection Substation	$1,200,000.00	$1,200,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$1,295,624.37
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$2,352,677.74
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$3,725,255.97
	Hitchland 765/345kV ckt1	$20,000,000.00	$438,456.34
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$424,683.41
	Potter - Bushland 230kV ckt1 Line Trap	$200,000.00	$56,064.91
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$1,574,931.95
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$1,187,553.58
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$686,086.50

Interconnection Request		E + C Cost	Allocated Costs
	Spearville 765/345kV Transformer	$20,000,000.00	$188,449.53
	Sunnyside - LES 345kV ckt1	$200,000.00	$4,275.83
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$315,140.84
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$327,679.33
	Woodward 765/345kV Transformer	$20,000,000.00	$200,605.84
G07-26GR	**Total**		**$21,889,569.85**
G07-27GR			
	Beckham 345/230kV Transformer	$10,000,000.00	$92,586.31
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$1,301,377.69
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$1,161,663.92
	Cimarron 345kV CB	$3,200,000.00	$32,820.59
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$218,443.65
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$274,016.32
	Comanche 765/345kV Transformer	$20,000,000.00	$70,647.57
	Finney - Spearville 765kV ckt1	$175,000,000.00	$612,684.01
	Finney 765/345kV Transformer	$20,000,000.00	$38,047.79
	GEN07-027 Interconnection Substation	$2,500,000.00	$2,500,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$462,931.55
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$1,169,900.48
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$1,632,374.01
	Hitchland 765/345kV ckt1	$20,000,000.00	$101,784.33
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$167,183.86
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$317,852.17
	Potter - Bushland 230kV ckt1 Line Trap	$200,000.00	$17,190.20
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$540,547.55
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$455,694.39
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$192,495.31
	Spearville 765/345kV Transformer	$20,000,000.00	$72,610.53
	Sunnyside - LES 345kV ckt1	$200,000.00	$2,156.36
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$155,246.52
	Woodward 765/345kV Transformer	$20,000,000.00	$53,924.30
G07-27GR	**Total**		**$11,644,179.39**
G07-30GR			
	Beckham 345/230kV Transformer	$10,000,000.00	$991,603.50
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$11,898,338.72
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$15,397,152.23

Interconnection Request		E + C Cost	Allocated Costs
	Cimarron 345kV CB	$3,200,000.00	$147,447.81
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$346,943.45
	Comanche 765/345kV Transformer	$20,000,000.00	$112,206.11
	Finney 765/345kV Transformer	$20,000,000.00	$253,279.23
	GEN07-030 Interconnection Substation	$2,500,000.00	$2,500,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$4,958,017.52
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$3,112,245.62
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$3,639,647.97
	Hitchland 765/345kV ckt1	$20,000,000.00	$495,360.60
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$497,523.15
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$6,055,827.85
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$809,160.14
	Spearville 765/345kV Transformer	$20,000,000.00	$222,254.55
	Sunnyside - LES 345kV ckt1	$200,000.00	$7,764.69
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$286,187.53
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$303,626.95
	Woodward 765/345kV Transformer	$20,000,000.00	$195,995.83
G07-30GR	**Total**		**$52,230,583.44**
G07-32GR			
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$299,497.39
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$2,117.63
	Cimarron 345kV CB	$3,200,000.00	$20,331.02
	GEN07-032 Interconnection Substation	$2,000,000.00	$2,000,000.00
	Sunnyside - LES 345kV ckt1	$200,000.00	$3,384.93
G07-32GR	**Total**		**$2,325,330.97**
G07-33GR			
	Beckham 345/230kV Transformer	$10,000,000.00	$326,378.62
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$3,999,266.07
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$4,874,409.97
	Cimarron 345kV CB	$3,200,000.00	$59,197.04
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$588,556.73
	Comanche - Medicine Lodge 345kV ckt 2	$60,000,000.00	$2,216,400.87
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$986,398.16
	Comanche 765/345kV Transformer	$20,000,000.00	$190,347.04
	Comanche 765/345kV Transformer #2	$20,000,000.00	$835,283.42
	Finney - Spearville 765kV ckt1	$175,000,000.00	$3,014,660.04

Interconnection Request		E + C Cost	Allocated Costs
	Finney 765/345kV Transformer	$20,000,000.00	$129,040.21
	GEN07-033 Interconnection Substation	$3,221,000.00	$3,221,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$1,631,893.09
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$5,041,606.24
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$8,204,395.63
	Hitchland 765/345kV ckt1	$20,000,000.00	$477,064.83
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$783,593.51
	Hutchinson - Riverview 115kV ckt1	$4,250,000.00	$930,412.09
	Knoll 345/230kV Transformer	$10,000,000.00	$90,120.19
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$860,808.08
	Medicine Lodge - Wichita 345kV ckt 2	$90,000,000.00	$2,957,438.43
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$991,322.04
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$1,902,619.09
	Potter - Harrington East 230kV ckt1 Line Trap	$200,000.00	$58,220.84
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$1,222,672.04
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$1,604,302.79
	Spearville 765/345kV Transformer	$20,000,000.00	$176,773.70
	Sunnyside - LES 345kV ckt1	$200,000.00	$4,808.95
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$511,248.30
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$530,573.33
	Woodward 765/345kV Transformer	$20,000,000.00	$161,736.54
	Woodward 765/345kV Transformer #2	$20,000,000.00	$351,532.48
G07-33GR	**Total**		**$48,934,080.35**
G07-34GR			
	Beckham 345/230kV Transformer	$10,000,000.00	$221,446.01
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$3,163,930.68
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$2,706,614.50
	Cimarron 345kV CB	$3,200,000.00	$83,573.62
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$537,882.55
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$683,791.14
	Comanche 765/345kV Transformer	$20,000,000.00	$173,958.34
	Finney - Spearville 765kV ckt1	$175,000,000.00	$1,501,044.09
	Finney 765/345kV Transformer	$20,000,000.00	$94,363.12
	GEN07-034 Interconnection Substation	$6,200,000.00	$6,200,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$1,107,230.07
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$2,880,302.10

Interconnection Request		E + C Cost	Allocated Costs
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$3,996,137.04
	Hitchland 765/345kV ckt1	$20,000,000.00	$249,853.61
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$410,392.16
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$782,502.46
	Potter - Bushland 230kV ckt1 Line Trap	$200,000.00	$41,551.89
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$1,294,026.73
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$1,108,252.98
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$463,497.37
	Spearville 765/345kV Transformer	$20,000,000.00	$180,118.59
	Sunnyside - LES 345kV ckt1	$200,000.00	$5,479.89
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$375,084.11
	Woodward 765/345kV Transformer	$20,000,000.00	$130,407.92
G07-34GR	**Total**		**$28,391,441.00**
G07-36			
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$1,147,137.18
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$4,761,431.15
	Comanche 765/345kV Transformer	$20,000,000.00	$370,999.36
	Finney - Spearville 765kV ckt1	$175,000,000.00	$5,799,971.86
	Finney 765/345kV Transformer	$20,000,000.00	$124,611.71
	GEN07-036 Interconnection Substation	$3,000,000.00	$3,000,000.00
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$5,117,843.19
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$2,145,853.28
	Hitchland 765/345kV ckt1	$20,000,000.00	$280,313.29
	Knoll 345/230kV Transformer	$10,000,000.00	$105,776.24
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$1,636,665.09
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$1,163,538.68
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$8,183,416.05
	Spearville 765/345kV Transformer	$20,000,000.00	$1,717,828.43
	Spearville 765/345kV Transformer #2	$20,000,000.00	$3,401,113.17
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$1,036,785.06
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$1,060,865.26
	Woodward 765/345kV Transformer	$20,000,000.00	$343,428.89
	Woodward 765/345kV Transformer #2	$20,000,000.00	$746,438.67
G07-36	**Total**		**$42,144,016.58**
G07-37			
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$1,147,137.18

Interconnection Request		E + C Cost	Allocated Costs
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$4,761,431.15
	Comanche 765/345kV Transformer	$20,000,000.00	$370,999.36
	Finney - Spearville 765kV ckt1	$175,000,000.00	$5,799,971.86
	Finney 765/345kV Transformer	$20,000,000.00	$124,611.71
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$5,117,843.19
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$2,145,853.28
	Hitchland 765/345kV ckt1	$20,000,000.00	$280,313.29
	Knoll 345/230kV Transformer	$10,000,000.00	$105,776.24
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$1,636,665.09
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$1,163,538.68
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$8,183,416.05
	Spearville 765/345kV Transformer	$20,000,000.00	$1,717,828.43
	Spearville 765/345kV Transformer #2	$20,000,000.00	$3,401,113.17
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$1,036,785.06
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$1,060,865.26
	Woodward 765/345kV Transformer	$20,000,000.00	$343,428.89
	Woodward 765/345kV Transformer #2	$20,000,000.00	$746,438.67
G07-37	**Total**		**$39,144,016.58**
G07-38			
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$1,147,137.18
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$4,761,431.15
	Comanche 765/345kV Transformer	$20,000,000.00	$370,999.36
	Finney - Spearville 765kV ckt1	$175,000,000.00	$5,799,971.86
	Finney 765/345kV Transformer	$20,000,000.00	$124,611.71
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$5,117,843.19
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$2,145,853.28
	Hitchland 765/345kV ckt1	$20,000,000.00	$280,313.29
	Knoll 345/230kV Transformer	$10,000,000.00	$105,776.24
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$1,636,665.09
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$1,163,538.68
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$8,183,416.05
	Spearville 765/345kV Transformer	$20,000,000.00	$1,717,828.43
	Spearville 765/345kV Transformer #2	$20,000,000.00	$3,401,113.17
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$1,036,785.06
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$1,060,865.26
	Woodward 765/345kV Transformer	$20,000,000.00	$343,428.89

Interconnection Request		E + C Cost	Allocated Costs
	Woodward 765/345kV Transformer #2	$20,000,000.00	$746,438.67
G07-38	**Total**		**$39,144,016.58**
G07-40			
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$2,746,134.76
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$9,553,460.03
	Comanche 765/345kV Transformer	$20,000,000.00	$888,136.37
	Finney - Spearville 765kV ckt1	$175,000,000.00	$502,286.68
	Finney 765/345kV Transformer	$20,000,000.00	$1,203,312.01
	GEN07-040 Interconnection Substation	$6,275,000.00	$6,275,000.00
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$14,210,244.67
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$9,894,786.65
	Hitchland 765/345kV ckt1	$20,000,000.00	$519,655.16
	Knoll 345/230kV Transformer	$10,000,000.00	$438,369.63
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$3,911,958.51
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$4,822,065.96
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$17,455,728.97
	Spearville 765/345kV Transformer	$20,000,000.00	$2,345,873.20
	Spearville 765/345kV Transformer #2	$20,000,000.00	$4,644,573.41
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$2,535,505.79
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$2,595,180.33
	Woodward 765/345kV Transformer	$20,000,000.00	$839,534.23
	Woodward 765/345kV Transformer #2	$20,000,000.00	$1,824,717.84
G07-40	**Total**		**$87,206,524.22**
G07-41			
	Beckham 345/230kV Transformer	$10,000,000.00	$533,100.98
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$5,854,185.55
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$8,672,482.57
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$7,348.39
	Cimarron 345kV CB	$3,200,000.00	$37,519.00
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$2,222,977.40
	Comanche - Medicine Lodge 345kV ckt 2	$60,000,000.00	$8,371,340.98
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$2,569,300.60
	Comanche 765/345kV Transformer	$20,000,000.00	$718,940.34
	Comanche 765/345kV Transformer #2	$20,000,000.00	$3,154,863.56
	Finney - Spearville 765kV ckt1	$175,000,000.00	$12,629,425.81
	Finney 765/345kV Transformer	$20,000,000.00	$431,120.58

Interconnection Request		E + C Cost	Allocated Costs
	GEN07-041 Interconnection Substation	$2,000,000.00	$2,000,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$2,665,504.90
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$19,775,811.58
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$34,856,784.38
	Hitchland 765/345kV ckt1	$20,000,000.00	$1,959,177.00
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$3,218,007.85
	Knoll 345/230kV Transformer	$10,000,000.00	$344,482.21
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$3,256,605.78
	Medicine Lodge - Wichita 345kV ckt 2	$90,000,000.00	$11,188,569.51
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$3,789,304.29
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$3,155,241.95
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$661,675.12
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$7,396,508.69
	Spearville 765/345kV Transformer	$20,000,000.00	$555,010.71
	Sunnyside - LES 345kV ckt1	$200,000.00	$8,975.37
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$2,373,488.52
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$2,439,286.60
	Woodward 765/345kV Transformer	$20,000,000.00	$784,383.15
	Woodward 765/345kV Transformer #2	$20,000,000.00	$1,704,847.60
G07-41	**Total**		**$147,336,270.99**
G07-42			
	Beckham 345/230kV Transformer	$10,000,000.00	$319,860.59
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$3,512,511.33
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$5,203,489.54
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$4,409.03
	Cimarron 345kV CB	$3,200,000.00	$22,511.40
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$1,333,786.44
	Comanche - Medicine Lodge 345kV ckt 2	$60,000,000.00	$5,022,804.59
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$1,541,580.36
	Comanche 765/345kV Transformer	$20,000,000.00	$431,364.21
	Comanche 765/345kV Transformer #2	$20,000,000.00	$1,892,918.14
	Finney - Spearville 765kV ckt1	$175,000,000.00	$7,577,655.48
	Finney 765/345kV Transformer	$20,000,000.00	$258,672.35
	GEN07-042 Interconnection Substation	$2,000,000.00	$2,000,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$1,599,302.94
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$11,865,486.95

Interconnection Request		E + C Cost	Allocated Costs
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$20,914,070.63
	Hitchland 765/345kV ckt1	$20,000,000.00	$1,175,506.20
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$1,930,804.71
	Knoll 345/230kV Transformer	$10,000,000.00	$206,689.32
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$1,953,963.47
	Medicine Lodge - Wichita 345kV ckt 2	$90,000,000.00	$6,713,141.71
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$2,273,582.57
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$1,893,145.17
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$397,005.07
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$4,437,905.21
	Spearville 765/345kV Transformer	$20,000,000.00	$333,006.43
	Sunnyside - LES 345kV ckt1	$200,000.00	$5,385.22
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$1,424,093.11
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$1,463,571.96
	Woodward 765/345kV Transformer	$20,000,000.00	$470,629.89
	Woodward 765/345kV Transformer #2	$20,000,000.00	$1,022,908.56
G07-42	**Total**		**$89,201,762.59**
G07-43			
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$598,994.77
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$17,374.49
	Cimarron 345kV CB	$3,200,000.00	$265,767.07
	GEN07-043 Interconnection Substation	$6,000,000.00	$6,000,000.00
	Sunnyside - LES 345kV ckt1	$200,000.00	$8,368.20
G07-43	**Total**		**$6,890,504.53**
G07-44			
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$18,377.49
	Cimarron 345kV CB	$3,200,000.00	$89,531.94
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$1,673,149.42
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$3,373,399.90
	Comanche 765/345kV Transformer	$20,000,000.00	$541,118.69
	GEN07-044 Interconnection Substation	$2,500,000.00	$2,500,000.00
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$2,446,358.54
	Sunnyside - LES 345kV ckt1	$200,000.00	$1,976.88
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$3,712,561.78
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$1,442,614.95
	Woodward 765/345kV Transformer	$20,000,000.00	$410,048.20

Interconnection Request		E + C Cost	Allocated Costs
G07-44	**Total**		**$16,209,137.78**
G07-45GR			
Beckham 345/230kV Transformer		$10,000,000.00	$1,041,183.68
Beckham County - Anadarko 345kV ckt 1		$125,000,000.00	$12,493,255.65
Beckham County - Lawton Eastside 345kV ckt		$150,000,000.00	$16,167,009.84
Cimarron 345kV CB		$3,200,000.00	$154,820.20
Comanche - Medicine Lodge 345kV ckt 1		$60,000,000.00	$364,290.62
Comanche 765/345kV Transformer		$20,000,000.00	$117,816.41
Finney 765/345kV Transformer		$20,000,000.00	$265,943.19
GEN07-045 Interconnection Substation		$2,500,000.00	$2,500,000.00
Grapevine - Beckham 345kV ckt 1		$50,000,000.00	$5,205,918.40
Hitchland - Finney 765kV ckt1		$254,000,000.00	$3,267,857.90
Hitchland - Woodward 765kV ckt1		$336,000,000.00	$3,821,630.37
Hitchland 765/345kV ckt1		$20,000,000.00	$520,128.63
Medicine Lodge - Wichita 345kV ckt 1		$90,000,000.00	$522,399.31
Potter - Grapevine 345kV ckt 1		$60,000,000.00	$6,358,619.24
Spearville - Comanche 765kV ckt1		$175,000,000.00	$849,618.15
Spearville 765/345kV Transformer		$20,000,000.00	$233,367.28
Sunnyside - LES 345kV ckt1		$200,000.00	$8,152.92
Tatonga - Northwest 345kV ckt 2		$60,000,000.00	$300,496.90
Woodward - Tatonga 345kV ckt 2		$60,000,000.00	$318,808.30
Woodward 765/345kV Transformer		$20,000,000.00	$205,795.62
G07-45GR	**Total**		**$54,717,112.61**
G07-46			
Beckham 345/230kV Transformer		$10,000,000.00	$278,810.69
Beckham County - Anadarko 345kV ckt 1		$125,000,000.00	$3,314,164.24
Beckham County - Lawton Eastside 345kV ckt		$150,000,000.00	$4,272,051.26
Cimarron - Northwest 345kV CTs ckt1		$200,000.00	$937.20
Cimarron 345kV CB		$3,200,000.00	$41,613.94
Comanche - Medicine Lodge 345kV ckt 1		$60,000,000.00	$685,431.18
Comanche - Medicine Lodge 345kV ckt 2		$60,000,000.00	$2,581,212.98
Comanche - Woodward 765kV ckt1		$131,000,000.00	$977,506.64
Comanche 765/345kV Transformer		$20,000,000.00	$221,677.53
Comanche 765/345kV Transformer #2		$20,000,000.00	$972,768.26
Finney - Spearville 765kV ckt1		$175,000,000.00	$3,695,384.80
Finney 765/345kV Transformer		$20,000,000.00	$141,983.69

Interconnection Request		E + C Cost	Allocated Costs
	GEN07-046 Interconnection Substation	$1,200,000.00	$1,200,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$1,394,053.46
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$5,981,031.37
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$10,129,234.12
	Hitchland 765/345kV ckt1	$20,000,000.00	$578,971.13
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$950,977.71
	Knoll 345/230kV Transformer	$10,000,000.00	$105,568.31
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$1,003,281.13
	Medicine Lodge - Wichita 345kV ckt 2	$90,000,000.00	$3,446,926.46
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$1,161,251.43
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$1,632,131.62
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$655,729.56
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$2,066,459.74
	Spearville 765/345kV Transformer	$20,000,000.00	$189,250.86
	Sunnyside - LES 345kV ckt1	$200,000.00	$4,247.28
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$660,639.44
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$682,158.17
	Woodward 765/345kV Transformer	$20,000,000.00	$214,077.82
	Woodward 765/345kV Transformer #2	$20,000,000.00	$465,295.64
G07-46	**Total**		**$49,704,827.65**
G07-47			
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$608,144.23
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$2,131,374.36
	Comanche 765/345kV Transformer	$20,000,000.00	$196,681.90
	Finney - Spearville 765kV ckt1	$175,000,000.00	$3,122,411.40
	Finney 765/345kV Transformer	$20,000,000.00	$664,478.16
	GEN07-047 Interconnection Substation	$1,550,000.00	$1,550,000.00
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$4,531,610.66
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$2,933,737.16
	Hitchland 765/345kV ckt1	$20,000,000.00	$180,283.14
	Knoll 345/230kV Transformer	$10,000,000.00	$1,032,906.49
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$882,543.16
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$11,361,971.40
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$3,883,832.02
	Spearville 765/345kV Transformer	$20,000,000.00	$427,283.17
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$599,809.56

Interconnection Request		E + C Cost	Allocated Costs
	Woodward 765/345kV Transformer	$20,000,000.00	$413,716.58
G07-47	**Total**		**$34,520,783.37**
G07-48GR			
	Beckham 345/230kV Transformer	$10,000,000.00	$739,304.72
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$9,639,613.71
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$10,310,726.56
	Cimarron 345kV CB	$3,200,000.00	$188,618.74
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$902,593.89
	Comanche 765/345kV Transformer	$20,000,000.00	$291,910.82
	Finney 765/345kV Transformer	$20,000,000.00	$588,682.93
	GEN07-048 - Swisher 230kV ckt1 Line Trap	$200,000.00	$200,000.00
	GEN07-048 Interconnection Substation	$3,500,000.00	$3,500,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$3,696,523.61
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$7,233,620.66
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$11,328,674.30
	Hitchland 765/345kV ckt1	$20,000,000.00	$1,339,870.92
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$1,302,952.43
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$4,513,763.74
	Potter - Harrington East 230kV ckt1 Line Trap	$200,000.00	$141,779.16
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$3,327,577.59
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$2,105,077.95
	Spearville 765/345kV Transformer	$20,000,000.00	$578,208.35
	Sunnyside - LES 345kV ckt1	$200,000.00	$13,040.48
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$971,755.12
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$1,010,495.26
	Woodward 765/345kV Transformer	$20,000,000.00	$610,051.55
G07-48GR	**Total**		**$64,534,842.48**
G07-49GR			
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$119,798.95
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$710.63
	Cimarron 345kV CB	$3,200,000.00	$15,228.51
	GEN07-049 Interconnection Substation	$500,000.00	$500,000.00
	Sunnyside - LES 345kV ckt1	$200,000.00	$1,586.43
G07-49GR	**Total**		**$637,324.53**
G07-50			
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$16,649.63

Interconnection Request		E + C Cost	Allocated Costs
	Cimarron 345kV CB	$3,200,000.00	$93,578.98
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$3,009,986.08
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$6,068,726.80
	Comanche 765/345kV Transformer	$20,000,000.00	$973,469.38
	GEN07-050 Interconnection Substation	$1,500,000.00	$1,500,000.00
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$4,413,801.21
	Sunnyside - LES 345kV ckt1	$200,000.00	$2,278.41
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$3,419,195.17
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$3,551,876.07
	Woodward 765/345kV Transformer	$20,000,000.00	$734,330.06
G07-50	**Total**		**$23,783,891.79**
G07-51			
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$5,056.01
	Cimarron 345kV CB	$3,200,000.00	$40,566.26
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$1,183,574.50
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$2,386,320.11
	Comanche 765/345kV Transformer	$20,000,000.00	$382,783.68
	GEN07-051 Interconnection Substation	$750,000.00	$750,000.00
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$1,731,362.84
	Sunnyside - LES 345kV ckt1	$200,000.00	$1,732.74
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$1,195,840.09
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$1,264,666.76
	Woodward 345/138kV Transformer #2	$6,000,000.00	$3,287,895.71
	Woodward 765/345kV Transformer	$20,000,000.00	$289,849.91
G07-51	**Total**		**$12,519,648.60**
G07-52			
	Cimarron 345kV CB	$3,200,000.00	$54,500.43
	GEN07-052 Interconnection Substation	$750,000.00	$750,000.00
	Sunnyside - LES 345kV ckt1	$200,000.00	$4,302.18
G07-52	**Total**		**$808,802.61**
G07-55GR			
	Beckham 345/230kV Transformer	$10,000,000.00	$366,120.55
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$5,246,488.07
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$4,452,492.23
	Cimarron 345kV CB	$3,200,000.00	$139,700.95
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$894,217.06

Interconnection Request		E + C Cost	Allocated Costs
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$1,139,462.55
	Comanche 765/345kV Transformer	$20,000,000.00	$289,201.64
	Finney - Spearville 765kV ckt1	$175,000,000.00	$2,492,928.11
	Finney 765/345kV Transformer	$20,000,000.00	$157,080.04
	GEN07-055 Interconnection Substation	$6,200,000.00	$6,200,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$1,830,602.76
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$4,788,044.29
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$6,636,603.09
	Hitchland 765/345kV ckt1	$20,000,000.00	$415,119.81
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$681,846.92
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$1,300,709.59
	Potter - Bushland 230kV ckt1 Line Trap	$200,000.00	$68,523.09
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$2,139,793.51
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$1,837,509.34
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$767,458.08
	Spearville 765/345kV Transformer	$20,000,000.00	$299,776.53
	Sunnyside - LES 345kV ckt1	$200,000.00	$9,157.68
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$621,446.85
	Woodward 765/345kV Transformer	$20,000,000.00	$216,097.03
G07-55GR	**Total**		**$42,990,379.76**
G07-56			
	Beckham 345/230kV Transformer	$10,000,000.00	$1,332,752.45
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$14,635,463.86
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$21,681,206.43
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$18,370.98
	Cimarron 345kV CB	$3,200,000.00	$93,797.50
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$5,557,443.51
	Comanche - Medicine Lodge 345kV ckt 2	$60,000,000.00	$20,928,352.45
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$6,423,251.51
	Comanche 765/345kV Transformer	$20,000,000.00	$1,797,350.86
	Comanche 765/345kV Transformer #2	$20,000,000.00	$7,887,158.90
	Finney - Spearville 765kV ckt1	$175,000,000.00	$31,573,564.52
	Finney 765/345kV Transformer	$20,000,000.00	$1,077,801.45
	GEN07-056 Interconnection Substation	$7,500,000.00	$7,500,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$6,663,762.25
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$49,439,528.96

Interconnection Request		E + C Cost	Allocated Costs
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$87,141,960.96
	Hitchland 765/345kV ckt1	$20,000,000.00	$4,897,942.51
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$8,045,019.62
	Knoll 345/230kV Transformer	$10,000,000.00	$861,205.52
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$8,141,514.45
	Medicine Lodge - Wichita 345kV ckt 2	$90,000,000.00	$27,971,423.77
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$9,473,260.72
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$7,888,104.88
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$1,654,187.81
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$18,491,271.73
	Spearville 765/345kV Transformer	$20,000,000.00	$1,387,526.79
	Sunnyside - LES 345kV ckt1	$200,000.00	$22,438.42
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$5,933,721.31
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$6,098,216.50
	Woodward 765/345kV Transformer	$20,000,000.00	$1,960,957.86
	Woodward 765/345kV Transformer #2	$20,000,000.00	$4,262,118.99
G07-56	**Total**		**$370,840,677.47**
G07-57			
	Beckham 345/230kV Transformer	$10,000,000.00	$86,794.76
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$1,063,341.29
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$1,297,275.92
	Cimarron 345kV CB	$3,200,000.00	$15,693.20
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$152,380.15
	Comanche - Medicine Lodge 345kV ckt 2	$60,000,000.00	$573,836.77
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$256,542.29
	Comanche 765/345kV Transformer	$20,000,000.00	$49,281.76
	Comanche 765/345kV Transformer #2	$20,000,000.00	$216,258.87
	Finney - Spearville 765kV ckt1	$175,000,000.00	$779,351.54
	Finney 765/345kV Transformer	$20,000,000.00	$33,482.05
	GEN07-057 Interconnection Substation	$2,500,000.00	$2,500,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$433,973.82
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$1,304,864.13
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$2,120,682.20
	Hitchland 765/345kV ckt1	$20,000,000.00	$123,385.31
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$202,664.12
	Knoll 345/230kV Transformer	$10,000,000.00	$23,342.20

Interconnection Request		E + C Cost	Allocated Costs
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$222,859.80
	Medicine Lodge - Wichita 345kV ckt 2	$90,000,000.00	$765,669.09
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$256,764.25
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$505,762.36
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$331,452.38
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$413,975.30
	Spearville 765/345kV Transformer	$20,000,000.00	$45,911.11
	Sunnyside - LES 345kV ckt1	$200,000.00	$1,260.29
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$131,674.14
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$136,687.00
	Woodward 765/345kV Transformer	$20,000,000.00	$41,706.54
	Woodward 765/345kV Transformer #2	$20,000,000.00	$90,648.69
G07-57	**Total**		**$14,177,521.34**
G07-58			
	Beckham 345/230kV Transformer	$10,000,000.00	$271,038.84
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$2,809,700.74
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$4,565,166.21
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$5,590.40
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$1,482,994.66
	Comanche - Medicine Lodge 345kV ckt 2	$60,000,000.00	$5,584,696.44
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$2,264,538.11
	Comanche 765/345kV Transformer	$20,000,000.00	$479,620.12
	Comanche 765/345kV Transformer #2	$20,000,000.00	$2,104,675.39
	Finney - Spearville 765kV ckt1	$175,000,000.00	$10,912,317.37
	Finney 765/345kV Transformer	$20,000,000.00	$1,342,099.74
	GEN07-059/058 Interconnection Substation	$2,500,000.00	$2,500,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$1,355,194.22
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$3,981,653.98
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$14,653,727.62
	Hitchland 765/345kV ckt1	$20,000,000.00	$317,520.44
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$521,536.99
	Knoll 345/230kV Transformer	$10,000,000.00	$361,021.86
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$2,172,421.76
	Medicine Lodge - Wichita 345kV ckt 2	$90,000,000.00	$7,463,688.74
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$3,971,240.41
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$1,621,395.70

Interconnection Request		E + C Cost	Allocated Costs
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$9,536,609.36
	Spearville 765/345kV Transformer	$20,000,000.00	$384,498.45
	Sunnyside - LES 345kV ckt1	$200,000.00	$5,105.93
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$1,596,881.80
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$1,641,174.03
	Woodward 765/345kV Transformer	$20,000,000.00	$530,390.80
	Woodward 765/345kV Transformer #2	$20,000,000.00	$1,152,798.21
G07-58	**Total**		**$85,589,298.33**
G07-60			
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$12,435.43
	Cimarron 345kV CB	$3,200,000.00	$60,583.28
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$1,132,164.44
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$2,282,667.27
	Comanche 765/345kV Transformer	$20,000,000.00	$366,156.98
	GEN07-060 Interconnection Substation	$2,500,000.00	$2,500,000.00
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$1,655,369.28
	Sunnyside - LES 345kV ckt1	$200,000.00	$1,337.69
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$2,512,166.80
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$976,169.45
	Woodward 765/345kV Transformer	$20,000,000.00	$277,465.95
G07-60	**Total**		**$11,776,516.57**
G07-61			
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$9,514.07
	Cimarron 345kV CB	$3,200,000.00	$53,473.70
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$1,719,992.05
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$3,467,843.89
	Comanche 765/345kV Transformer	$20,000,000.00	$556,268.22
	GEN07-061 Interconnection Substation	$2,500,000.00	$2,500,000.00
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$2,522,172.12
	Sunnyside - LES 345kV ckt1	$200,000.00	$1,301.95
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$1,953,825.81
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$2,029,643.47
	Woodward 765/345kV Transformer	$20,000,000.00	$419,617.18
G07-61	**Total**		**$15,233,652.45**
G07-62			
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$39,959.11

Interconnection Request		E + C Cost	Allocated Costs
	Cimarron 345kV CB	$3,200,000.00	$224,589.56
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$7,223,966.59
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$14,564,944.33
	Comanche 765/345kV Transformer	$20,000,000.00	$2,336,326.51
	GEN07-062/063 Interconnection Substation	$2,500,000.00	$2,500,000.00
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$10,593,122.90
	Sunnyside - LES 345kV ckt1	$200,000.00	$5,468.18
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$8,206,068.40
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$8,524,502.57
	Woodward 765/345kV Transformer	$20,000,000.00	$1,762,392.14
G07-62	**Total**		**$55,981,340.29**
G07-64			
	Alexander - Nekoma 115kV ckt1	$1,290,000.00	$1,290,000.00
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$402,425.85
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$1,787,922.40
	Comanche 765/345kV Transformer	$20,000,000.00	$130,149.85
	Finney - Spearville 765kV ckt1	$175,000,000.00	$1,080,356.97
	Finney 765/345kV Transformer	$20,000,000.00	$364,347.86
	GEN07-064 - Alexander 115kV ckt1	$1,785,000.00	$1,785,000.00
	GEN07-064 - Ness City 115kV ckt1	$1,785,000.00	$1,785,000.00
	GEN07-064 Interconnection Substation	$2,000,000.00	$2,000,000.00
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$3,198,921.38
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$1,744,813.62
	Hitchland 765/345kV ckt1	$20,000,000.00	$148,694.67
	Knoll 345/230kV Transformer	$10,000,000.00	$97,422.27
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$582,972.64
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$1,071,644.96
	Nekoma 115/69kV Transformer	$2,000,000.00	$2,000,000.00
	Seward 115/69kV Transformer	$2,000,000.00	$2,000,000.00
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$3,006,622.17
	Spearville 765/345kV Transformer	$20,000,000.00	$604,570.40
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$447,948.24
	Woodward 765/345kV Transformer	$20,000,000.00	$308,469.88
G07-64	**Total**		**$25,837,283.15**
G07-65			
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$484,262.12

Interconnection Request		E + C Cost	Allocated Costs
	Finney - Spearville 765kV ckt1	$175,000,000.00	$150,274.78
	Finney 765/345kV Transformer	$20,000,000.00	$43,566.97
	GEN07-065 Interconnection Substation	$2,000,000.00	$2,000,000.00
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$694,348.92
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$93,151.23
	Hitchland 765/345kV ckt1	$20,000,000.00	$51,034.09
	Knoll 345/230kV Transformer	$10,000,000.00	$171,128.06
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$1,882,408.62
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$563,591.08
	Spearville 765/345kV Transformer	$20,000,000.00	$185,569.07
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$89,185.14
	Woodward 765/345kV Transformer	$20,000,000.00	$63,120.69
G07-65	**Total**		**$6,471,640.76**
G08-01			
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$258,442.07
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$2,099,277.04
	Comanche 765/345kV Transformer	$20,000,000.00	$83,583.59
	Finney - Spearville 765kV ckt1	$175,000,000.00	$720,707.95
	Finney 765/345kV Transformer	$20,000,000.00	$358,401.18
	GEN08-001 Interconnection Substation	$2,000,000.00	$2,000,000.00
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$3,524,679.45
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$1,416,506.17
	Hitchland 765/345kV ckt1	$20,000,000.00	$197,106.37
	Knoll 345/230kV Transformer	$10,000,000.00	$1,802,110.16
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$367,272.21
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$19,823,211.79
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$3,031,108.99
	Spearville 765/345kV Transformer	$20,000,000.00	$684,955.99
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$471,409.69
	Woodward 765/345kV Transformer	$20,000,000.00	$328,162.15
G08-01	**Total**		**$37,166,934.80**
G08-03			
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$4,886.78
	Cimarron 345kV CB	$3,200,000.00	$30,008.02
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$938,009.47
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$1,891,212.46

Interconnection Request		E + C Cost	Allocated Costs
	Comanche 765/345kV Transformer	$20,000,000.00	$303,364.69
	GEN08-003 Interconnection Substationt	$1,250,000.00	$1,250,000.00
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$1,374,745.51
	Sunnyside - LES 345kV ckt1	$200,000.00	$854.28
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$1,036,338.99
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$1,080,605.23
	Woodward 345/138kV Transformer #2	$6,000,000.00	$2,712,104.29
	Woodward 765/345kV Transformer	$20,000,000.00	$229,033.77
G08-03	**Total**		**$10,851,163.47**
G08-07			
	Beckham 345/230kV Transformer	$10,000,000.00	$122,519.46
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$1,906,469.33
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$1,280,447.99
	Cimarron 345kV CB	$3,200,000.00	$61,555.68
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$346,208.69
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$466,494.23
	Comanche 765/345kV Transformer	$20,000,000.00	$111,968.48
	Finney - Spearville 765kV ckt1	$175,000,000.00	$943,946.48
	Finney 765/345kV Transformer	$20,000,000.00	$62,684.69
	GEN08-007 Interconnection Substationt	$1,000,000.00	$1,000,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$612,597.29
	Grassland - Lynn 115kV ckt1	$2,130,000.00	$360,120.31
	Grassland 230/115kV Transformer	$5,000,000.00	$715,064.00
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$1,852,252.19
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$2,504,149.69
	Hitchland 765/345kV ckt1	$20,000,000.00	$158,511.95
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$260,360.71
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$503,151.30
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$719,509.61
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$666,102.15
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$267,825.35
	Spearville 765/345kV Transformer	$20,000,000.00	$119,765.27
	Sunnyside - LES 345kV ckt1	$200,000.00	$4,010.33
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$220,929.41
	Woodward 765/345kV Transformer	$20,000,000.00	$76,985.70
G08-07	**Total**		**$15,343,630.29**

Interconnection Request		E + C Cost	Allocated Costs
G08-08GR			
	Beckham 345/230kV Transformer	$10,000,000.00	$71,227.42
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$1,109,371.14
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$743,160.54
	Cimarron 345kV CB	$3,200,000.00	$35,875.64
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$201,584.81
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$271,744.21
	Comanche 765/345kV Transformer	$20,000,000.00	$65,195.20
	Finney - Spearville 765kV ckt1	$175,000,000.00	$549,448.76
	Finney 765/345kV Transformer	$20,000,000.00	$36,502.20
	GEN08-008 Interconnection Substation	$1,000,000.00	$1,000,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$356,137.10
	Grassland - Lynn 115kV ckt1	$2,130,000.00	$899,297.57
	Grassland 230/115kV Transformer	$5,000,000.00	$2,556,286.13
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$1,078,496.96
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$1,457,614.21
	Hitchland 765/345kV ckt1	$20,000,000.00	$92,277.18
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$151,568.08
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$292,964.93
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$418,312.64
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$387,545.02
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$155,751.94
	Spearville 765/345kV Transformer	$20,000,000.00	$69,751.74
	Sunnyside - LES 345kV ckt1	$200,000.00	$2,337.21
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$128,527.91
	Woodward 765/345kV Transformer	$20,000,000.00	$44,791.52
G08-08GR	**Total**		**$12,175,770.04**
G08-09GR			
	Beckham 345/230kV Transformer	$10,000,000.00	$89,225.64
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$1,271,241.46
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$1,095,327.72
	Cimarron 345kV CB	$3,200,000.00	$33,327.07
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$215,693.94
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$273,607.34
	Comanche 765/345kV Transformer	$20,000,000.00	$69,758.28
	Finney - Spearville 765kV ckt1	$175,000,000.00	$602,462.03

Interconnection Request		E + C Cost	Allocated Costs
	Finney 765/345kV Transformer	$20,000,000.00	$37,797.86
	GEN08-009 Interconnection Substation	$750,000.00	$750,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$446,128.22
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$1,155,030.24
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$1,604,023.64
	Hitchland 765/345kV ckt1	$20,000,000.00	$100,240.83
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$164,648.62
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$313,798.44
	Potter - Bushland 230kV ckt1 Line Trap	$200,000.00	$16,669.90
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$521,279.16
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$445,230.20
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$186,555.39
	Spearville 765/345kV Transformer	$20,000,000.00	$72,134.07
	Sunnyside - LES 345kV ckt1	$200,000.00	$2,186.07
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$150,898.94
	Woodward 765/345kV Transformer	$20,000,000.00	$52,452.15
G08-09GR	**Total**		**$9,669,717.23**
G08-11			
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$3,149,086.51
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$8,644,010.63
	Comanche 765/345kV Transformer	$20,000,000.00	$1,018,456.30
	Finney - Spearville 765kV ckt1	$175,000,000.00	$18,605,403.62
	Finney 765/345kV Transformer	$20,000,000.00	$3,261,783.98
	GEN08-011 Interconnection Substation	$2,000,000.00	$2,000,000.00
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$18,751,057.63
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$17,308,915.62
	Hitchland 765/345kV ckt1	$20,000,000.00	$406,232.50
	Knoll 345/230kV Transformer	$10,000,000.00	$734,611.61
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$4,478,705.16
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$8,080,727.72
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$17,343,501.37
	Spearville 765/345kV Transformer	$20,000,000.00	$476,610.40
	Spearville 765/345kV Transformer #2	$20,000,000.00	$943,636.67
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$2,974,858.71
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$3,045,837.01
	Woodward 765/345kV Transformer	$20,000,000.00	$984,650.02

Interconnection Request		E + C Cost	Allocated Costs
	Woodward 765/345kV Transformer #2	$20,000,000.00	$2,140,125.31
G08-11	**Total**		**$114,348,210.79**
G08-13			
	Cimarron 345kV CB	$3,200,000.00	$86,227.25
	GEN08-013 Interconnection Substation	$6,000,000.00	$6,000,000.00
	Sunnyside - LES 345kV ckt1	$200,000.00	$1,659.95
G08-13	**Total**		**$6,087,887.20**
G08-14			
	Beckham 345/230kV Transformer	$10,000,000.00	$47,376.04
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$1,613,108.59
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$721,893.94
	Cimarron 345kV CB	$3,200,000.00	$109,768.67
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$396,058.71
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$662,774.13
	Comanche 765/345kV Transformer	$20,000,000.00	$128,090.63
	Finney - Spearville 765kV ckt1	$175,000,000.00	$972,321.27
	Finney 765/345kV Transformer	$20,000,000.00	$81,357.16
	GEN08-014 Interconnection Substationt	$1,500,000.00	$1,500,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$236,880.18
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$2,114,363.18
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$2,536,092.80
	Hitchland 765/345kV ckt1	$20,000,000.00	$170,350.20
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$279,805.39
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$573,336.73
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$297,840.74
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$566,810.36
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$157,039.80
	Spearville 765/345kV Transformer	$20,000,000.00	$156,006.52
	Sunnyside - LES 345kV ckt1	$200,000.00	$7,013.89
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$150,001.99
	Woodward 765/345kV Transformer	$20,000,000.00	$54,305.97
G08-14	**Total**		**$13,532,596.86**
G08-15			
	Beckham 345/230kV Transformer	$10,000,000.00	$47,376.04
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$1,613,108.59
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$721,893.94

Interconnection Request		E + C Cost	Allocated Costs
	Cimarron 345kV CB	$3,200,000.00	$109,768.67
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$396,058.71
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$662,774.13
	Comanche 765/345kV Transformer	$20,000,000.00	$128,090.63
	Finney - Spearville 765kV ckt1	$175,000,000.00	$972,321.27
	Finney 765/345kV Transformer	$20,000,000.00	$81,357.16
	GEN08-015 Interconnection Substation	$2,500,000.00	$2,500,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$236,880.18
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$2,114,363.18
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$2,536,092.80
	Hitchland 765/345kV ckt1	$20,000,000.00	$170,350.20
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$279,805.39
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$573,336.73
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$297,840.74
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$566,810.36
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$157,039.80
	Spearville 765/345kV Transformer	$20,000,000.00	$156,006.52
	Sunnyside - LES 345kV ckt1	$200,000.00	$7,013.89
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$150,001.99
	Woodward 765/345kV Transformer	$20,000,000.00	$54,305.97
G08-15	**Total**		**$14,532,596.86**
G08-16			
	Beckham 345/230kV Transformer	$10,000,000.00	$296,187.82
	Beckham County - Anadarko 345kV ckt 1	$125,000,000.00	$4,608,843.33
	Beckham County - Lawton Eastside 345kV ckt	$150,000,000.00	$3,095,451.94
	Cimarron 345kV CB	$3,200,000.00	$148,809.35
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$836,951.10
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$1,127,738.47
	Comanche 765/345kV Transformer	$20,000,000.00	$270,681.08
	Finney - Spearville 765kV ckt1	$175,000,000.00	$2,281,967.70
	Finney 765/345kV Transformer	$20,000,000.00	$151,538.72
	GEN08-016 Interconnection Substation	$2,000,000.00	$2,000,000.00
	Grapevine - Beckham 345kV ckt 1	$50,000,000.00	$1,480,939.09
	Grassland - Lynn 115kV ckt1	$2,130,000.00	$870,582.12
	Grassland 230/115kV Transformer	$5,000,000.00	$1,728,649.87
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$4,477,774.71

Interconnection Request		E + C Cost	Allocated Costs
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$6,053,721.10
	Hitchland 765/345kV ckt1	$20,000,000.00	$383,198.80
	Hitchland 765/345kV Transformer #2	$20,000,000.00	$629,415.69
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$1,216,356.05
	Potter - Grapevine 345kV ckt 1	$60,000,000.00	$1,739,397.02
	Replace Potter 345/115kV Auto with (2) 750M	$20,000,000.00	$1,610,285.77
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$647,461.28
	Spearville 765/345kV Transformer	$20,000,000.00	$289,529.63
	Sunnyside - LES 345kV ckt1	$200,000.00	$9,694.88
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$534,091.49
	Woodward 765/345kV Transformer	$20,000,000.00	$186,111.07
G08-16	**Total**		**$36,675,378.07**
G08-17			
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$1,414,406.84
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$3,562,666.56
	Comanche 765/345kV Transformer	$20,000,000.00	$457,437.91
	Finney - Spearville 765kV ckt1	$175,000,000.00	$7,265,356.54
	Finney 765/345kV Transformer	$20,000,000.00	$1,358,901.27
	GEN08-017 Interconnection Substation	$2,000,000.00	$2,000,000.00
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$8,289,758.37
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$6,518,054.65
	Hitchland 765/345kV ckt1	$20,000,000.00	$254,111.54
	Knoll 345/230kV Transformer	$10,000,000.00	$807,118.73
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$2,064,577.08
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$8,878,306.05
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$7,419,900.39
	Spearville 765/345kV Transformer	$20,000,000.00	$550,029.48
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$1,140,394.98
	Woodward 765/345kV Transformer	$20,000,000.00	$778,467.29
G08-17	**Total**		**$52,759,487.68**
G08-18			
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$2,128,828.24
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$5,821,210.85
	Comanche 765/345kV Transformer	$20,000,000.00	$688,491.26
	Finney - Spearville 765kV ckt1	$175,000,000.00	$12,696,644.10
	Finney 765/345kV Transformer	$20,000,000.00	$2,216,531.97

Interconnection Request		E + C Cost	Allocated Costs
	GEN08-018 Interconnection Substation	$2,000,000.00	$2,000,000.00
	Hitchland - Finney 765kV ckt1	$254,000,000.00	$12,681,511.93
	Hitchland - Woodward 765kV ckt1	$336,000,000.00	$11,738,193.76
	Hitchland 765/345kV ckt1	$20,000,000.00	$272,680.08
	Knoll 345/230kV Transformer	$10,000,000.00	$492,395.27
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$3,027,835.95
	Mingo - Knoll 345kV ckt 1	$110,000,000.00	$5,416,347.92
	Spearville - Comanche 765kV ckt1	$175,000,000.00	$11,698,702.61
	Spearville 765/345kV Transformer	$20,000,000.00	$306,508.42
	Spearville 765/345kV Transformer #2	$20,000,000.00	$606,853.29
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$2,010,146.76
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$2,058,076.84
	Woodward 765/345kV Transformer	$20,000,000.00	$665,301.23
	Woodward 765/345kV Transformer #2	$20,000,000.00	$1,446,024.45
G08-18	**Total**		**$77,972,284.92**
G08-19			
	Cimarron - Northwest 345kV CTs ckt1	$200,000.00	$18,363.17
	Cimarron 345kV CB	$3,200,000.00	$89,496.02
	Comanche - Medicine Lodge 345kV ckt 1	$60,000,000.00	$1,676,304.82
	Comanche - Woodward 765kV ckt1	$131,000,000.00	$3,379,761.80
	Comanche 765/345kV Transformer	$20,000,000.00	$542,139.19
	GEN08-019/020 Interconnection Substation	$5,000,000.00	$5,000,000.00
	Medicine Lodge - Wichita 345kV ckt 1	$90,000,000.00	$2,451,010.36
	Sunnyside - LES 345kV ckt1	$200,000.00	$1,976.20
	Tatonga - Northwest 345kV ckt 2	$60,000,000.00	$3,709,738.94
	Woodward - Tatonga 345kV ckt 2	$60,000,000.00	$1,445,358.56
	Woodward 765/345kV Transformer	$20,000,000.00	$410,811.54
G08-19	**Total**		**$18,724,960.59**
All Upgrades Total			**$2,379,111,000.00**

G: Cost Allocation per Proposed Network Upgrade

Appendix G

Allocation per Upgrade

Upgrade	E_C Cost	Allocated Costs
Alexander - Nekoma 115kV ckt1		
G07-64	$1,290,000.00	$1,290,000.00
Upgrade Total		$1,290,000.00
Beckham 345/230kV Transformer		
G06-49GR	$10,000,000.00	$268,355.29
G07-05GR	$10,000,000.00	$311,566.80
G07-08GR	$10,000,000.00	$1,487,405.26
G07-10GR	$10,000,000.00	$398,653.65
G07-26GR	$10,000,000.00	$259,124.87
G07-27GR	$10,000,000.00	$92,586.31
G07-30GR	$10,000,000.00	$991,603.50
G07-33GR	$10,000,000.00	$326,378.62
G07-34GR	$10,000,000.00	$221,446.01
G07-41	$10,000,000.00	$533,100.98
G07-42	$10,000,000.00	$319,860.59
G07-45GR	$10,000,000.00	$1,041,183.68
G07-46	$10,000,000.00	$278,810.69
G07-48GR	$10,000,000.00	$739,304.72
G07-55GR	$10,000,000.00	$366,120.55
G07-56	$10,000,000.00	$1,332,752.45
G07-57	$10,000,000.00	$86,794.76
G07-58	$10,000,000.00	$271,038.84
G08-07	$10,000,000.00	$122,519.46
G08-08GR	$10,000,000.00	$71,227.42
G08-09GR	$10,000,000.00	$89,225.64
G08-14	$10,000,000.00	$47,376.04
G08-15	$10,000,000.00	$47,376.04
G08-16	$10,000,000.00	$296,187.82
Upgrade Total		$10,000,000.00
Beckham County - Anadarko 345kV ckt 1		
G06-49GR	$125,000,000.00	$2,781,881.92
G07-05GR	$125,000,000.00	$3,801,838.98
G07-08GR	$125,000,000.00	$17,847,508.07
G07-10GR	$125,000,000.00	$5,149,515.06
G07-26GR	$125,000,000.00	$3,347,184.79
G07-27GR	$125,000,000.00	$1,301,377.69
G07-30GR	$125,000,000.00	$11,898,338.72

Upgrade	E_C Cost	Allocated Costs
G07-32GR	$125,000,000.00	$299,497.39
G07-33GR	$125,000,000.00	$3,999,266.07
G07-34GR	$125,000,000.00	$3,163,930.68
G07-41	$125,000,000.00	$5,854,185.55
G07-42	$125,000,000.00	$3,512,511.33
G07-43	$125,000,000.00	$598,994.77
G07-45GR	$125,000,000.00	$12,493,255.65
G07-46	$125,000,000.00	$3,314,164.24
G07-48GR	$125,000,000.00	$9,639,613.71
G07-49GR	$125,000,000.00	$119,798.95
G07-55GR	$125,000,000.00	$5,246,488.07
G07-56	$125,000,000.00	$14,635,463.86
G07-57	$125,000,000.00	$1,063,341.29
G07-58	$125,000,000.00	$2,809,700.74
G08-07	$125,000,000.00	$1,906,469.33
G08-08GR	$125,000,000.00	$1,109,371.14
G08-09GR	$125,000,000.00	$1,271,241.46
G08-14	$125,000,000.00	$1,613,108.59
G08-15	$125,000,000.00	$1,613,108.59
G08-16	$125,000,000.00	$4,608,843.33
Upgrade Total		$125,000,000.00
Beckham County - Lawton Eastside 345kV ckt 1		
G06-49GR	$150,000,000.00	$4,519,966.55
G07-05GR	$150,000,000.00	$4,668,247.46
G07-08GR	$150,000,000.00	$23,095,728.34
G07-10GR	$150,000,000.00	$5,634,024.49
G07-26GR	$150,000,000.00	$3,662,115.92
G07-27GR	$150,000,000.00	$1,161,663.92
G07-30GR	$150,000,000.00	$15,397,152.23
G07-33GR	$150,000,000.00	$4,874,409.97
G07-34GR	$150,000,000.00	$2,706,614.50
G07-41	$150,000,000.00	$8,672,482.57
G07-42	$150,000,000.00	$5,203,489.54
G07-45GR	$150,000,000.00	$16,167,009.84
G07-46	$150,000,000.00	$4,272,051.26
G07-48GR	$150,000,000.00	$10,310,726.56
G07-55GR	$150,000,000.00	$4,452,492.23
G07-56	$150,000,000.00	$21,681,206.43
G07-57	$150,000,000.00	$1,297,275.92
G07-58	$150,000,000.00	$4,565,166.21
G08-07	$150,000,000.00	$1,280,447.99
G08-08GR	$150,000,000.00	$743,160.54
G08-09GR	$150,000,000.00	$1,095,327.72

Upgrade	E_C Cost	Allocated Costs
G08-14	$150,000,000.00	$721,893.94
G08-15	$150,000,000.00	$721,893.94
G08-16	$150,000,000.00	$3,095,451.94
Upgrade Total		$150,000,000.00
Cimarron - Northwest 345kV CTs ckt1		
G06-49GR	$200,000.00	$5,535.05
G07-21	$200,000.00	$12,364.53
G07-32GR	$200,000.00	$2,117.63
G07-41	$200,000.00	$7,348.39
G07-42	$200,000.00	$4,409.03
G07-43	$200,000.00	$17,374.49
G07-44	$200,000.00	$18,377.49
G07-46	$200,000.00	$937.20
G07-49GR	$200,000.00	$710.63
G07-50	$200,000.00	$16,649.63
G07-51	$200,000.00	$5,056.01
G07-56	$200,000.00	$18,370.98
G07-58	$200,000.00	$5,590.40
G07-60	$200,000.00	$12,435.43
G07-61	$200,000.00	$9,514.07
G07-62	$200,000.00	$39,959.11
G08-03	$200,000.00	$4,886.78
G08-19	$200,000.00	$18,363.17
Upgrade Total		$200,000.00
Cimarron 345kV CB		
G07-05GR	$3,200,000.00	$55,173.94
G07-08GR	$3,200,000.00	$221,171.72
G07-10GR	$3,200,000.00	$96,739.99
G07-21	$3,200,000.00	$60,260.65
G07-25	$3,200,000.00	$63,471.59
G07-26GR	$3,200,000.00	$62,880.99
G07-27GR	$3,200,000.00	$32,820.59
G07-30GR	$3,200,000.00	$147,447.81
G07-32GR	$3,200,000.00	$20,331.02
G07-33GR	$3,200,000.00	$59,197.04
G07-34GR	$3,200,000.00	$83,573.62
G07-41	$3,200,000.00	$37,519.00
G07-42	$3,200,000.00	$22,511.40
G07-43	$3,200,000.00	$265,767.07
G07-44	$3,200,000.00	$89,531.94
G07-45GR	$3,200,000.00	$154,820.20
G07-46	$3,200,000.00	$41,613.94

Upgrade	E_C Cost	Allocated Costs
G07-48GR	$3,200,000.00	$188,618.74
G07-49GR	$3,200,000.00	$15,228.51
G07-50	$3,200,000.00	$93,578.98
G07-51	$3,200,000.00	$40,566.26
G07-52	$3,200,000.00	$54,500.43
G07-55GR	$3,200,000.00	$139,700.95
G07-56	$3,200,000.00	$93,797.50
G07-57	$3,200,000.00	$15,693.20
G07-60	$3,200,000.00	$60,583.28
G07-61	$3,200,000.00	$53,473.70
G07-62	$3,200,000.00	$224,589.56
G08-03	$3,200,000.00	$30,008.02
G08-07	$3,200,000.00	$61,555.68
G08-08GR	$3,200,000.00	$35,875.64
G08-09GR	$3,200,000.00	$33,327.07
G08-13	$3,200,000.00	$86,227.25
G08-14	$3,200,000.00	$109,768.67
G08-15	$3,200,000.00	$109,768.67
G08-16	$3,200,000.00	$148,809.35
G08-19	$3,200,000.00	$89,496.02
Upgrade Total		$3,200,000.00
Comanche - Medicine Lodge 345kV ckt 1		
G06-06	$60,000,000.00	$1,042,263.04
G06-49GR	$60,000,000.00	$1,468,311.55
G07-05GR	$60,000,000.00	$600,502.16
G07-08GR	$60,000,000.00	$520,415.17
G07-10GR	$60,000,000.00	$452,574.13
G07-12	$60,000,000.00	$689,228.93
G07-19GR	$60,000,000.00	$1,576,909.80
G07-21	$60,000,000.00	$1,128,711.91
G07-25	$60,000,000.00	$1,840,385.48
G07-26GR	$60,000,000.00	$294,173.18
G07-27GR	$60,000,000.00	$218,443.65
G07-30GR	$60,000,000.00	$346,943.45
G07-33GR	$60,000,000.00	$588,556.73
G07-34GR	$60,000,000.00	$537,882.55
G07-36	$60,000,000.00	$1,147,137.18
G07-37	$60,000,000.00	$1,147,137.18
G07-38	$60,000,000.00	$1,147,137.18
G07-40	$60,000,000.00	$2,746,134.76
G07-41	$60,000,000.00	$2,222,977.40
G07-42	$60,000,000.00	$1,333,786.44
G07-44	$60,000,000.00	$1,673,149.42

Upgrade	E_C Cost	Allocated Costs
G07-45GR	$60,000,000.00	$364,290.62
G07-46	$60,000,000.00	$685,431.18
G07-47	$60,000,000.00	$608,144.23
G07-48GR	$60,000,000.00	$902,593.89
G07-50	$60,000,000.00	$3,009,986.08
G07-51	$60,000,000.00	$1,183,574.50
G07-55GR	$60,000,000.00	$894,217.06
G07-56	$60,000,000.00	$5,557,443.51
G07-57	$60,000,000.00	$152,380.15
G07-58	$60,000,000.00	$1,482,994.66
G07-60	$60,000,000.00	$1,132,164.44
G07-61	$60,000,000.00	$1,719,992.05
G07-62	$60,000,000.00	$7,223,966.59
G07-64	$60,000,000.00	$402,425.85
G08-01	$60,000,000.00	$258,442.07
G08-03	$60,000,000.00	$938,009.47
G08-07	$60,000,000.00	$346,208.69
G08-08GR	$60,000,000.00	$201,584.81
G08-09GR	$60,000,000.00	$215,693.94
G08-11	$60,000,000.00	$3,149,086.51
G08-14	$60,000,000.00	$396,058.71
G08-15	$60,000,000.00	$396,058.71
G08-16	$60,000,000.00	$836,951.10
G08-17	$60,000,000.00	$1,414,406.84
G08-18	$60,000,000.00	$2,128,828.24
G08-19	$60,000,000.00	$1,676,304.82
Upgrade Total		$60,000,000.00
Comanche - Medicine Lodge 345kV ckt 2		
G06-49GR	$60,000,000.00	$5,529,402.42
G07-05GR	$60,000,000.00	$2,261,385.26
G07-25	$60,000,000.00	$6,930,567.25
G07-33GR	$60,000,000.00	$2,216,400.87
G07-41	$60,000,000.00	$8,371,340.98
G07-42	$60,000,000.00	$5,022,804.59
G07-46	$60,000,000.00	$2,581,212.98
G07-56	$60,000,000.00	$20,928,352.45
G07-57	$60,000,000.00	$573,836.77
G07-58	$60,000,000.00	$5,584,696.44
Upgrade Total		$60,000,000.00
Comanche - Woodward 765kV ckt1		
G06-06	$131,000,000.00	$4,575,699.89
G06-49GR	$131,000,000.00	$2,242,116.94

Upgrade	E_C Cost	Allocated Costs
G07-05GR	$131,000,000.00	$977,158.25
G07-12	$131,000,000.00	$2,831,274.75
G07-19GR	$131,000,000.00	$4,312,008.04
G07-21	$131,000,000.00	$2,275,706.28
G07-25	$131,000,000.00	$7,421,161.68
G07-27GR	$131,000,000.00	$274,016.32
G07-33GR	$131,000,000.00	$986,398.16
G07-34GR	$131,000,000.00	$683,791.14
G07-36	$131,000,000.00	$4,761,431.15
G07-37	$131,000,000.00	$4,761,431.15
G07-38	$131,000,000.00	$4,761,431.15
G07-40	$131,000,000.00	$9,553,460.03
G07-41	$131,000,000.00	$2,569,300.60
G07-42	$131,000,000.00	$1,541,580.36
G07-44	$131,000,000.00	$3,373,399.90
G07-46	$131,000,000.00	$977,506.64
G07-47	$131,000,000.00	$2,131,374.36
G07-50	$131,000,000.00	$6,068,726.80
G07-51	$131,000,000.00	$2,386,320.11
G07-55GR	$131,000,000.00	$1,139,462.55
G07-56	$131,000,000.00	$6,423,251.51
G07-57	$131,000,000.00	$256,542.29
G07-58	$131,000,000.00	$2,264,538.11
G07-60	$131,000,000.00	$2,282,667.27
G07-61	$131,000,000.00	$3,467,843.89
G07-62	$131,000,000.00	$14,564,944.33
G07-64	$131,000,000.00	$1,787,922.40
G07-65	$131,000,000.00	$484,262.12
G08-01	$131,000,000.00	$2,099,277.04
G08-03	$131,000,000.00	$1,891,212.46
G08-07	$131,000,000.00	$466,494.23
G08-08GR	$131,000,000.00	$271,744.21
G08-09GR	$131,000,000.00	$273,607.34
G08-11	$131,000,000.00	$8,644,010.63
G08-14	$131,000,000.00	$662,774.13
G08-15	$131,000,000.00	$662,774.13
G08-16	$131,000,000.00	$1,127,738.47
G08-17	$131,000,000.00	$3,562,666.56
G08-18	$131,000,000.00	$5,821,210.85
G08-19	$131,000,000.00	$3,379,761.80
Upgrade Total		$131,000,000.00
Comanche 765/345kV Transformer		
G06-06	$20,000,000.00	$337,081.68

Upgrade	E_C Cost	Allocated Costs
G06-49GR	$20,000,000.00	$474,871.41
G07-05GR	$20,000,000.00	$194,210.35
G07-08GR	$20,000,000.00	$168,309.16
G07-10GR	$20,000,000.00	$146,368.47
G07-12	$20,000,000.00	$222,905.77
G07-19GR	$20,000,000.00	$509,993.52
G07-21	$20,000,000.00	$365,040.39
G07-25	$20,000,000.00	$1,190,410.10
G07-26GR	$20,000,000.00	$95,139.51
G07-27GR	$20,000,000.00	$70,647.57
G07-30GR	$20,000,000.00	$112,206.11
G07-33GR	$20,000,000.00	$190,347.04
G07-34GR	$20,000,000.00	$173,958.34
G07-36	$20,000,000.00	$370,999.36
G07-37	$20,000,000.00	$370,999.36
G07-38	$20,000,000.00	$370,999.36
G07-40	$20,000,000.00	$888,136.37
G07-41	$20,000,000.00	$718,940.34
G07-42	$20,000,000.00	$431,364.21
G07-44	$20,000,000.00	$541,118.69
G07-45GR	$20,000,000.00	$117,816.41
G07-46	$20,000,000.00	$221,677.53
G07-47	$20,000,000.00	$196,681.90
G07-48GR	$20,000,000.00	$291,910.82
G07-50	$20,000,000.00	$973,469.38
G07-51	$20,000,000.00	$382,783.68
G07-55GR	$20,000,000.00	$289,201.64
G07-56	$20,000,000.00	$1,797,350.86
G07-57	$20,000,000.00	$49,281.76
G07-58	$20,000,000.00	$479,620.12
G07-60	$20,000,000.00	$366,156.98
G07-61	$20,000,000.00	$556,268.22
G07-62	$20,000,000.00	$2,336,326.51
G07-64	$20,000,000.00	$130,149.85
G08-01	$20,000,000.00	$83,583.59
G08-03	$20,000,000.00	$303,364.69
G08-07	$20,000,000.00	$111,968.48
G08-08GR	$20,000,000.00	$65,195.20
G08-09GR	$20,000,000.00	$69,758.28
G08-11	$20,000,000.00	$1,018,456.30
G08-14	$20,000,000.00	$128,090.63
G08-15	$20,000,000.00	$128,090.63
G08-16	$20,000,000.00	$270,681.08
G08-17	$20,000,000.00	$457,437.91

Upgrade	E_C Cost	Allocated Costs
G08-18	$20,000,000.00	$688,491.26
G08-19	$20,000,000.00	$542,139.19
Upgrade Total		$20,000,000.00
Comanche 765/345kV Transformer #2		
G06-49GR	$20,000,000.00	$2,083,837.02
G07-05GR	$20,000,000.00	$852,236.45
G07-33GR	$20,000,000.00	$835,283.42
G07-41	$20,000,000.00	$3,154,863.56
G07-42	$20,000,000.00	$1,892,918.14
G07-46	$20,000,000.00	$972,768.26
G07-56	$20,000,000.00	$7,887,158.90
G07-57	$20,000,000.00	$216,258.87
G07-58	$20,000,000.00	$2,104,675.39
Upgrade Total		$20,000,000.00
Finney - Spearville 765kV ckt1		
G06-06	$175,000,000.00	$5,188,075.07
G06-49GR	$175,000,000.00	$10,804,274.63
G07-05GR	$175,000,000.00	$3,107,245.28
G07-12	$175,000,000.00	$3,840,642.58
G07-19GR	$175,000,000.00	$9,404,921.56
G07-27GR	$175,000,000.00	$612,684.01
G07-33GR	$175,000,000.00	$3,014,660.04
G07-34GR	$175,000,000.00	$1,501,044.09
G07-36	$175,000,000.00	$5,799,971.86
G07-37	$175,000,000.00	$5,799,971.86
G07-38	$175,000,000.00	$5,799,971.86
G07-40	$175,000,000.00	$502,286.68
G07-41	$175,000,000.00	$12,629,425.81
G07-42	$175,000,000.00	$7,577,655.48
G07-46	$175,000,000.00	$3,695,384.80
G07-47	$175,000,000.00	$3,122,411.40
G07-55GR	$175,000,000.00	$2,492,928.11
G07-56	$175,000,000.00	$31,573,564.52
G07-57	$175,000,000.00	$779,351.54
G07-58	$175,000,000.00	$10,912,317.37
G07-64	$175,000,000.00	$1,080,356.97
G07-65	$175,000,000.00	$150,274.78
G08-01	$175,000,000.00	$720,707.95
G08-07	$175,000,000.00	$943,946.48
G08-08GR	$175,000,000.00	$549,448.76
G08-09GR	$175,000,000.00	$602,462.03
G08-11	$175,000,000.00	$18,605,403.62

Upgrade	E_C Cost	Allocated Costs
G08-14	$175,000,000.00	$972,321.27
G08-15	$175,000,000.00	$972,321.27
G08-16	$175,000,000.00	$2,281,967.70
G08-17	$175,000,000.00	$7,265,356.54
G08-18	$175,000,000.00	$12,696,644.10
Upgrade Total		$175,000,000.00
Finney 765/345kV Transformer		
G06-06	$20,000,000.00	$74,968.72
G06-49GR	$20,000,000.00	$1,328,811.62
G07-05GR	$20,000,000.00	$130,202.14
G07-08GR	$20,000,000.00	$379,918.84
G07-10GR	$20,000,000.00	$294,560.70
G07-12	$20,000,000.00	$850,205.30
G07-19GR	$20,000,000.00	$1,641,875.53
G07-26GR	$20,000,000.00	$191,464.45
G07-27GR	$20,000,000.00	$38,047.79
G07-30GR	$20,000,000.00	$253,279.23
G07-33GR	$20,000,000.00	$129,040.21
G07-34GR	$20,000,000.00	$94,363.12
G07-36	$20,000,000.00	$124,611.71
G07-37	$20,000,000.00	$124,611.71
G07-38	$20,000,000.00	$124,611.71
G07-40	$20,000,000.00	$1,203,312.01
G07-41	$20,000,000.00	$431,120.58
G07-42	$20,000,000.00	$258,672.35
G07-45GR	$20,000,000.00	$265,943.19
G07-46	$20,000,000.00	$141,983.69
G07-47	$20,000,000.00	$664,478.16
G07-48GR	$20,000,000.00	$588,682.93
G07-55GR	$20,000,000.00	$157,080.04
G07-56	$20,000,000.00	$1,077,801.45
G07-57	$20,000,000.00	$33,482.05
G07-58	$20,000,000.00	$1,342,099.74
G07-64	$20,000,000.00	$364,347.86
G07-65	$20,000,000.00	$43,566.97
G08-01	$20,000,000.00	$358,401.18
G08-07	$20,000,000.00	$62,684.69
G08-08GR	$20,000,000.00	$36,502.20
G08-09GR	$20,000,000.00	$37,797.86
G08-11	$20,000,000.00	$3,261,783.98
G08-14	$20,000,000.00	$81,357.16
G08-15	$20,000,000.00	$81,357.16
G08-16	$20,000,000.00	$151,538.72

Upgrade	E_C Cost	Allocated Costs
G08-17	$20,000,000.00	$1,358,901.27
G08-18	$20,000,000.00	$2,216,531.97
Upgrade Total		$20,000,000.00
GEN06-006 Interconnection Substation Cost		
G06-06	$1,500,000.00	$1,500,000.00
Upgrade Total		$1,500,000.00
GEN06-049 Interconnection Substation		
G06-49GR	$1,500,000.00	$1,500,000.00
Upgrade Total		$1,500,000.00
GEN07-005 Interconnection Substation		
G07-05GR	$600,000.00	$600,000.00
Upgrade Total		$600,000.00
GEN07-008 Interconnection Substation		
G07-08GR	$2,500,000.00	$2,500,000.00
Upgrade Total		$2,500,000.00
GEN07-010 Interconnection Substation		
G07-10GR	$500,000.00	$500,000.00
Upgrade Total		$500,000.00
GEN07-012 Interconnection Substation		
G07-12	$6,275,000.00	$6,275,000.00
Upgrade Total		$6,275,000.00
GEN07-019 Interconnection Substation		
G07-19GR	$6,200,000.00	$6,200,000.00
Upgrade Total		$6,200,000.00
GEN07-021 Interconnection Substation		
G07-21	$2,500,000.00	$2,500,000.00
Upgrade Total		$2,500,000.00
GEN07-025 Interconnection Substation		
G07-25	$6,000,000.00	$6,000,000.00
Upgrade Total		$6,000,000.00
GEN07-026 Interconnection Substation		
G07-26GR	$1,200,000.00	$1,200,000.00
Upgrade Total		$1,200,000.00
GEN07-027 Interconnection Substation		

Upgrade	E_C Cost	Allocated Costs
G07-27GR	$2,500,000.00	$2,500,000.00
Upgrade Total		$2,500,000.00
GEN07-030 Interconnection Substation		
G07-30GR	$2,500,000.00	$2,500,000.00
Upgrade Total		$2,500,000.00
GEN07-032 Interconnection Substation		
G07-32GR	$2,000,000.00	$2,000,000.00
Upgrade Total		$2,000,000.00
GEN07-033 Interconnection Substation		
G07-33GR	$3,221,000.00	$3,221,000.00
Upgrade Total		$3,221,000.00
GEN07-034 Interconnection Substation		
G07-34GR	$6,200,000.00	$6,200,000.00
Upgrade Total		$6,200,000.00
GEN07-036 Interconnection Substation		
G07-36	$3,000,000.00	$3,000,000.00
Upgrade Total		$3,000,000.00
GEN07-040 Interconnection Substation		
G07-40	$6,275,000.00	$6,275,000.00
Upgrade Total		$6,275,000.00
GEN07-041 Interconnection Substation		
G07-41	$2,000,000.00	$2,000,000.00
Upgrade Total		$2,000,000.00
GEN07-042 Interconnection Substation		
G07-42	$2,000,000.00	$2,000,000.00
Upgrade Total		$2,000,000.00
GEN07-043 Interconnection Substation		
G07-43	$6,000,000.00	$6,000,000.00
Upgrade Total		$6,000,000.00
GEN07-044 Interconnection Substation		
G07-44	$2,500,000.00	$2,500,000.00
Upgrade Total		$2,500,000.00
GEN07-045 Interconnection Substation		
G07-45GR	$2,500,000.00	$2,500,000.00

Upgrade	E_C Cost	Allocated Costs
Upgrade Total		$2,500,000.00
GEN07-046 Interconnection Substation		
G07-46	$1,200,000.00	$1,200,000.00
Upgrade Total		$1,200,000.00
GEN07-047 Interconnection Substation		
G07-47	$1,550,000.00	$1,550,000.00
Upgrade Total		$1,550,000.00
GEN07-048 - Swisher 230kV ckt1 Line Trap		
G07-48GR	$200,000.00	$200,000.00
Upgrade Total		$200,000.00
GEN07-048 Interconnection Substation		
G07-48GR	$3,500,000.00	$3,500,000.00
Upgrade Total		$3,500,000.00
GEN07-049 Interconnection Substation		
G07-49GR	$500,000.00	$500,000.00
Upgrade Total		$500,000.00
GEN07-050 Interconnection Substation		
G07-50	$1,500,000.00	$1,500,000.00
Upgrade Total		$1,500,000.00
GEN07-051 Interconnection Substation		
G07-51	$750,000.00	$750,000.00
Upgrade Total		$750,000.00
GEN07-052 Interconnection Substation		
G07-52	$750,000.00	$750,000.00
Upgrade Total		$750,000.00
GEN07-055 Interconnection Substation		
G07-55GR	$6,200,000.00	$6,200,000.00
Upgrade Total		$6,200,000.00
GEN07-056 Interconnection Substation		
G07-56	$7,500,000.00	$7,500,000.00
Upgrade Total		$7,500,000.00
GEN07-057 Interconnection Substation		
G07-57	$2,500,000.00	$2,500,000.00
Upgrade Total		$2,500,000.00

Upgrade	E_C Cost	Allocated Costs
GEN07-059/058 Interconnection Substation		
G07-58	$2,500,000.00	$2,500,000.00
Upgrade Total		$2,500,000.00
GEN07-060 Interconnection Substation		
G07-60	$2,500,000.00	$2,500,000.00
Upgrade Total		$2,500,000.00
GEN07-061 Interconnection Substation		
G07-61	$2,500,000.00	$2,500,000.00
Upgrade Total		$2,500,000.00
GEN07-062/063 Interconnection Substation		
G07-62	$2,500,000.00	$2,500,000.00
Upgrade Total		$2,500,000.00
GEN07-064 - Alexander 115kV ckt1		
G07-64	$1,785,000.00	$1,785,000.00
Upgrade Total		$1,785,000.00
GEN07-064 - Ness City 115kV ckt1		
G07-64	$1,785,000.00	$1,785,000.00
Upgrade Total		$1,785,000.00
GEN07-064 Interconnection Substation		
G07-64	$2,000,000.00	$2,000,000.00
Upgrade Total		$2,000,000.00
GEN07-065 Interconnection Substation		
G07-65	$2,000,000.00	$2,000,000.00
Upgrade Total		$2,000,000.00
GEN08-001 Interconnection Substation		
G08-01	$2,000,000.00	$2,000,000.00
Upgrade Total		$2,000,000.00
GEN08-003 Interconnection Substationt		
G08-03	$1,250,000.00	$1,250,000.00
Upgrade Total		$1,250,000.00
GEN08-007 Interconnection Substationt		
G08-07	$1,000,000.00	$1,000,000.00
Upgrade Total		$1,000,000.00
GEN08-008 Interconnection Substation		

Upgrade	E_C Cost	Allocated Costs
G08-08GR	$1,000,000.00	$1,000,000.00
Upgrade Total		$1,000,000.00
GEN08-009 Interconnection Substation		
G08-09GR	$750,000.00	$750,000.00
Upgrade Total		$750,000.00
GEN08-011 Interconnection Substation		
G08-11	$2,000,000.00	$2,000,000.00
Upgrade Total		$2,000,000.00
GEN08-013 Interconnection Substation		
G08-13	$6,000,000.00	$6,000,000.00
Upgrade Total		$6,000,000.00
GEN08-014 Interconnection Substationt		
G08-14	$1,500,000.00	$1,500,000.00
Upgrade Total		$1,500,000.00
GEN08-015 Interconnection Substation		
G08-15	$2,500,000.00	$2,500,000.00
Upgrade Total		$2,500,000.00
GEN08-016 Interconnection Substation		
G08-16	$2,000,000.00	$2,000,000.00
Upgrade Total		$2,000,000.00
GEN08-017 Interconnection Substation		
G08-17	$2,000,000.00	$2,000,000.00
Upgrade Total		$2,000,000.00
GEN08-018 Interconnection Substation		
G08-18	$2,000,000.00	$2,000,000.00
Upgrade Total		$2,000,000.00
GEN08-019/020 Interconnection Substation		
G08-19	$5,000,000.00	$5,000,000.00
Upgrade Total		$5,000,000.00
Grapevine - Beckham 345kV ckt 1		
G06-49GR	$50,000,000.00	$1,341,776.46
G07-05GR	$50,000,000.00	$1,557,834.00
G07-08GR	$50,000,000.00	$7,437,026.28
G07-10GR	$50,000,000.00	$1,993,268.26
G07-26GR	$50,000,000.00	$1,295,624.37

Upgrade	E_C Cost	Allocated Costs
G07-27GR	$50,000,000.00	$462,931.55
G07-30GR	$50,000,000.00	$4,958,017.52
G07-33GR	$50,000,000.00	$1,631,893.09
G07-34GR	$50,000,000.00	$1,107,230.07
G07-41	$50,000,000.00	$2,665,504.90
G07-42	$50,000,000.00	$1,599,302.94
G07-45GR	$50,000,000.00	$5,205,918.40
G07-46	$50,000,000.00	$1,394,053.46
G07-48GR	$50,000,000.00	$3,696,523.61
G07-55GR	$50,000,000.00	$1,830,602.76
G07-56	$50,000,000.00	$6,663,762.25
G07-57	$50,000,000.00	$433,973.82
G07-58	$50,000,000.00	$1,355,194.22
G08-07	$50,000,000.00	$612,597.29
G08-08GR	$50,000,000.00	$356,137.10
G08-09GR	$50,000,000.00	$446,128.22
G08-14	$50,000,000.00	$236,880.18
G08-15	$50,000,000.00	$236,880.18
G08-16	$50,000,000.00	$1,480,939.09
Upgrade Total		$50,000,000.00
Grassland - Lynn 115kV ckt1		
G08-07	$2,130,000.00	$360,120.31
G08-08GR	$2,130,000.00	$899,297.57
G08-16	$2,130,000.00	$870,582.12
Upgrade Total		$2,130,000.00
Grassland 230/115kV Transformer		
G08-07	$5,000,000.00	$715,064.00
G08-08GR	$5,000,000.00	$2,556,286.13
G08-16	$5,000,000.00	$1,728,649.87
Upgrade Total		$5,000,000.00
Hitchland - Finney 765kV ckt1		
G06-06	$254,000,000.00	$5,026,649.78
G06-49GR	$254,000,000.00	$3,942,231.67
G07-05GR	$254,000,000.00	$5,162,292.29
G07-08GR	$254,000,000.00	$4,668,368.43
G07-10GR	$254,000,000.00	$3,619,504.21
G07-12	$254,000,000.00	$5,964,666.01
G07-19GR	$254,000,000.00	$9,393,712.54
G07-26GR	$254,000,000.00	$2,352,677.74
G07-27GR	$254,000,000.00	$1,169,900.48
G07-30GR	$254,000,000.00	$3,112,245.62

Upgrade	E_C Cost	Allocated Costs
G07-33GR	$254,000,000.00	$5,041,606.24
G07-34GR	$254,000,000.00	$2,880,302.10
G07-36	$254,000,000.00	$5,117,843.19
G07-37	$254,000,000.00	$5,117,843.19
G07-38	$254,000,000.00	$5,117,843.19
G07-40	$254,000,000.00	$14,210,244.67
G07-41	$254,000,000.00	$19,775,811.58
G07-42	$254,000,000.00	$11,865,486.95
G07-45GR	$254,000,000.00	$3,267,857.90
G07-46	$254,000,000.00	$5,981,031.37
G07-47	$254,000,000.00	$4,531,610.66
G07-48GR	$254,000,000.00	$7,233,620.66
G07-55GR	$254,000,000.00	$4,788,044.29
G07-56	$254,000,000.00	$49,439,528.96
G07-57	$254,000,000.00	$1,304,864.13
G07-58	$254,000,000.00	$3,981,653.98
G07-64	$254,000,000.00	$3,198,921.38
G07-65	$254,000,000.00	$694,348.92
G08-01	$254,000,000.00	$3,524,679.45
G08-07	$254,000,000.00	$1,852,252.19
G08-08GR	$254,000,000.00	$1,078,496.96
G08-09GR	$254,000,000.00	$1,155,030.24
G08-11	$254,000,000.00	$18,751,057.63
G08-14	$254,000,000.00	$2,114,363.18
G08-15	$254,000,000.00	$2,114,363.18
G08-16	$254,000,000.00	$4,477,774.71
G08-17	$254,000,000.00	$8,289,758.37
G08-18	$254,000,000.00	$12,681,511.93
Upgrade Total		$254,000,000.00
Hitchland - Woodward 765kV ckt1		
G06-06	$336,000,000.00	$2,090,991.93
G06-49GR	$336,000,000.00	$14,508,641.21
G07-05GR	$336,000,000.00	$8,468,324.11
G07-08GR	$336,000,000.00	$5,459,471.95
G07-10GR	$336,000,000.00	$5,731,163.03
G07-12	$336,000,000.00	$3,467,858.20
G07-19GR	$336,000,000.00	$8,694,958.34
G07-26GR	$336,000,000.00	$3,725,255.97
G07-27GR	$336,000,000.00	$1,632,374.01
G07-30GR	$336,000,000.00	$3,639,647.97
G07-33GR	$336,000,000.00	$8,204,395.63
G07-34GR	$336,000,000.00	$3,996,137.04
G07-36	$336,000,000.00	$2,145,853.28

Upgrade	E_C Cost	Allocated Costs
G07-37	$336,000,000.00	$2,145,853.28
G07-38	$336,000,000.00	$2,145,853.28
G07-40	$336,000,000.00	$9,894,786.65
G07-41	$336,000,000.00	$34,856,784.38
G07-42	$336,000,000.00	$20,914,070.63
G07-45GR	$336,000,000.00	$3,821,630.37
G07-46	$336,000,000.00	$10,129,234.12
G07-47	$336,000,000.00	$2,933,737.16
G07-48GR	$336,000,000.00	$11,328,674.30
G07-55GR	$336,000,000.00	$6,636,603.09
G07-56	$336,000,000.00	$87,141,960.96
G07-57	$336,000,000.00	$2,120,682.20
G07-58	$336,000,000.00	$14,653,727.62
G07-64	$336,000,000.00	$1,744,813.62
G07-65	$336,000,000.00	$93,151.23
G08-01	$336,000,000.00	$1,416,506.17
G08-07	$336,000,000.00	$2,504,149.69
G08-08GR	$336,000,000.00	$1,457,614.21
G08-09GR	$336,000,000.00	$1,604,023.64
G08-11	$336,000,000.00	$17,308,915.62
G08-14	$336,000,000.00	$2,536,092.80
G08-15	$336,000,000.00	$2,536,092.80
G08-16	$336,000,000.00	$6,053,721.10
G08-17	$336,000,000.00	$6,518,054.65
G08-18	$336,000,000.00	$11,738,193.76
Upgrade Total		$336,000,000.00
Hitchland 765/345kV ckt1		
G06-06	$20,000,000.00	$276,410.86
G06-49GR	$20,000,000.00	$314,376.68
G07-05GR	$20,000,000.00	$490,703.50
G07-08GR	$20,000,000.00	$743,040.90
G07-10GR	$20,000,000.00	$674,548.21
G07-12	$20,000,000.00	$263,126.36
G07-19GR	$20,000,000.00	$201,985.24
G07-26GR	$20,000,000.00	$438,456.34
G07-27GR	$20,000,000.00	$101,784.33
G07-30GR	$20,000,000.00	$495,360.60
G07-33GR	$20,000,000.00	$477,064.83
G07-34GR	$20,000,000.00	$249,853.61
G07-36	$20,000,000.00	$280,313.29
G07-37	$20,000,000.00	$280,313.29
G07-38	$20,000,000.00	$280,313.29
G07-40	$20,000,000.00	$519,655.16

Upgrade	E_C Cost	Allocated Costs
G07-41	$20,000,000.00	$1,959,177.00
G07-42	$20,000,000.00	$1,175,506.20
G07-45GR	$20,000,000.00	$520,128.63
G07-46	$20,000,000.00	$578,971.13
G07-47	$20,000,000.00	$180,283.14
G07-48GR	$20,000,000.00	$1,339,870.92
G07-55GR	$20,000,000.00	$415,119.81
G07-56	$20,000,000.00	$4,897,942.51
G07-57	$20,000,000.00	$123,385.31
G07-58	$20,000,000.00	$317,520.44
G07-64	$20,000,000.00	$148,694.67
G07-65	$20,000,000.00	$51,034.09
G08-01	$20,000,000.00	$197,106.37
G08-07	$20,000,000.00	$158,511.95
G08-08GR	$20,000,000.00	$92,277.18
G08-09GR	$20,000,000.00	$100,240.83
G08-11	$20,000,000.00	$406,232.50
G08-14	$20,000,000.00	$170,350.20
G08-15	$20,000,000.00	$170,350.20
G08-16	$20,000,000.00	$383,198.80
G08-17	$20,000,000.00	$254,111.54
G08-18	$20,000,000.00	$272,680.08
Upgrade Total		$20,000,000.00
Hitchland 765/345kV Transformer #2		
G06-49GR	$20,000,000.00	$516,373.26
G07-05GR	$20,000,000.00	$805,995.42
G07-27GR	$20,000,000.00	$167,183.86
G07-33GR	$20,000,000.00	$783,593.51
G07-34GR	$20,000,000.00	$410,392.16
G07-41	$20,000,000.00	$3,218,007.85
G07-42	$20,000,000.00	$1,930,804.71
G07-46	$20,000,000.00	$950,977.71
G07-55GR	$20,000,000.00	$681,846.92
G07-56	$20,000,000.00	$8,045,019.62
G07-57	$20,000,000.00	$202,664.12
G07-58	$20,000,000.00	$521,536.99
G08-07	$20,000,000.00	$260,360.71
G08-08GR	$20,000,000.00	$151,568.08
G08-09GR	$20,000,000.00	$164,648.62
G08-14	$20,000,000.00	$279,805.39
G08-15	$20,000,000.00	$279,805.39
G08-16	$20,000,000.00	$629,415.69
Upgrade Total		$20,000,000.00

Upgrade	E_C Cost	Allocated Costs
Hutchinson - Riverview 115kV ckt1		
G07-05GR	$4,250,000.00	$3,319,587.91
G07-33GR	$4,250,000.00	$930,412.09
Upgrade Total		$4,250,000.00
Knoll 345/230kV Transformer		
G06-49GR	$10,000,000.00	$357,447.38
G07-05GR	$10,000,000.00	$92,077.19
G07-12	$10,000,000.00	$1,299,917.63
G07-19GR	$10,000,000.00	$364,737.23
G07-33GR	$10,000,000.00	$90,120.19
G07-36	$10,000,000.00	$105,776.24
G07-37	$10,000,000.00	$105,776.24
G07-38	$10,000,000.00	$105,776.24
G07-40	$10,000,000.00	$438,369.63
G07-41	$10,000,000.00	$344,482.21
G07-42	$10,000,000.00	$206,689.32
G07-46	$10,000,000.00	$105,568.31
G07-47	$10,000,000.00	$1,032,906.49
G07-56	$10,000,000.00	$861,205.52
G07-57	$10,000,000.00	$23,342.20
G07-58	$10,000,000.00	$361,021.86
G07-64	$10,000,000.00	$97,422.27
G07-65	$10,000,000.00	$171,128.06
G08-01	$10,000,000.00	$1,802,110.16
G08-11	$10,000,000.00	$734,611.61
G08-17	$10,000,000.00	$807,118.73
G08-18	$10,000,000.00	$492,395.27
Upgrade Total		$10,000,000.00
Medicine Lodge - Wichita 345kV ckt 1		
G06-06	$90,000,000.00	$1,480,420.45
G06-49GR	$90,000,000.00	$2,150,912.64
G07-05GR	$90,000,000.00	$878,418.54
G07-08GR	$90,000,000.00	$746,284.72
G07-10GR	$90,000,000.00	$653,359.10
G07-12	$90,000,000.00	$995,489.33
G07-19GR	$90,000,000.00	$2,242,841.45
G07-21	$90,000,000.00	$1,650,346.97
G07-25	$90,000,000.00	$5,555,102.92
G07-26GR	$90,000,000.00	$424,683.41
G07-27GR	$90,000,000.00	$317,852.17
G07-30GR	$90,000,000.00	$497,523.15
G07-33GR	$90,000,000.00	$860,808.08

Upgrade	E_C Cost	Allocated Costs
G07-34GR	$90,000,000.00	$782,502.46
G07-36	$90,000,000.00	$1,636,665.09
G07-37	$90,000,000.00	$1,636,665.09
G07-38	$90,000,000.00	$1,636,665.09
G07-40	$90,000,000.00	$3,911,958.51
G07-41	$90,000,000.00	$3,256,605.78
G07-42	$90,000,000.00	$1,953,963.47
G07-44	$90,000,000.00	$2,446,358.54
G07-45GR	$90,000,000.00	$522,399.31
G07-46	$90,000,000.00	$1,003,281.13
G07-47	$90,000,000.00	$882,543.16
G07-48GR	$90,000,000.00	$1,302,952.43
G07-50	$90,000,000.00	$4,413,801.21
G07-51	$90,000,000.00	$1,731,362.84
G07-55GR	$90,000,000.00	$1,300,709.59
G07-56	$90,000,000.00	$8,141,514.45
G07-57	$90,000,000.00	$222,859.80
G07-58	$90,000,000.00	$2,172,421.76
G07-60	$90,000,000.00	$1,655,369.28
G07-61	$90,000,000.00	$2,522,172.12
G07-62	$90,000,000.00	$10,593,122.90
G07-64	$90,000,000.00	$582,972.64
G08-01	$90,000,000.00	$367,272.21
G08-03	$90,000,000.00	$1,374,745.51
G08-07	$90,000,000.00	$503,151.30
G08-08GR	$90,000,000.00	$292,964.93
G08-09GR	$90,000,000.00	$313,798.44
G08-11	$90,000,000.00	$4,478,705.16
G08-14	$90,000,000.00	$573,336.73
G08-15	$90,000,000.00	$573,336.73
G08-16	$90,000,000.00	$1,216,356.05
G08-17	$90,000,000.00	$2,064,577.08
G08-18	$90,000,000.00	$3,027,835.95
G08-19	$90,000,000.00	$2,451,010.36
Upgrade Total		$90,000,000.00
Medicine Lodge - Wichita 345kV ckt 2		
G06-49GR	$90,000,000.00	$7,389,790.83
G07-05GR	$90,000,000.00	$3,017,941.87
G07-25	$90,000,000.00	$19,085,409.59
G07-33GR	$90,000,000.00	$2,957,438.43
G07-41	$90,000,000.00	$11,188,569.51
G07-42	$90,000,000.00	$6,713,141.71
G07-46	$90,000,000.00	$3,446,926.46

Upgrade	E_C Cost	Allocated Costs
G07-56	$90,000,000.00	$27,971,423.77
G07-57	$90,000,000.00	$765,669.09
G07-58	$90,000,000.00	$7,463,688.74
Upgrade Total		$90,000,000.00
Mingo - Knoll 345kV ckt 1		
G06-49GR	$110,000,000.00	$3,931,921.20
G07-05GR	$110,000,000.00	$1,012,849.12
G07-12	$110,000,000.00	$14,299,093.93
G07-19GR	$110,000,000.00	$4,012,109.57
G07-33GR	$110,000,000.00	$991,322.04
G07-36	$110,000,000.00	$1,163,538.68
G07-37	$110,000,000.00	$1,163,538.68
G07-38	$110,000,000.00	$1,163,538.68
G07-40	$110,000,000.00	$4,822,065.96
G07-41	$110,000,000.00	$3,789,304.29
G07-42	$110,000,000.00	$2,273,582.57
G07-46	$110,000,000.00	$1,161,251.43
G07-47	$110,000,000.00	$11,361,971.40
G07-56	$110,000,000.00	$9,473,260.72
G07-57	$110,000,000.00	$256,764.25
G07-58	$110,000,000.00	$3,971,240.41
G07-64	$110,000,000.00	$1,071,644.96
G07-65	$110,000,000.00	$1,882,408.62
G08-01	$110,000,000.00	$19,823,211.79
G08-11	$110,000,000.00	$8,080,727.72
G08-17	$110,000,000.00	$8,878,306.05
G08-18	$110,000,000.00	$5,416,347.92
Upgrade Total		$110,000,000.00
Nekoma 115/69kV Transformer		
G07-64	$2,000,000.00	$2,000,000.00
Upgrade Total		$2,000,000.00
Potter - Bushland 230kV ckt1 Line Trap		
G07-26GR	$200,000.00	$56,064.91
G07-27GR	$200,000.00	$17,190.20
G07-34GR	$200,000.00	$41,551.89
G07-55GR	$200,000.00	$68,523.09
G08-09GR	$200,000.00	$16,669.90
Upgrade Total		$200,000.00
Potter - Grapevine 345kV ckt 1		
G06-49GR	$60,000,000.00	$1,605,342.28

Upgrade	E_C Cost	Allocated Costs
G07-05GR	$60,000,000.00	$1,817,852.46
G07-08GR	$60,000,000.00	$9,083,741.77
G07-10GR	$60,000,000.00	$2,422,972.23
G07-26GR	$60,000,000.00	$1,574,931.95
G07-27GR	$60,000,000.00	$540,547.55
G07-30GR	$60,000,000.00	$6,055,827.85
G07-33GR	$60,000,000.00	$1,902,619.09
G07-34GR	$60,000,000.00	$1,294,026.73
G07-41	$60,000,000.00	$3,155,241.95
G07-42	$60,000,000.00	$1,893,145.17
G07-45GR	$60,000,000.00	$6,358,619.24
G07-46	$60,000,000.00	$1,632,131.62
G07-48GR	$60,000,000.00	$4,513,763.74
G07-55GR	$60,000,000.00	$2,139,793.51
G07-56	$60,000,000.00	$7,888,104.88
G07-57	$60,000,000.00	$505,762.36
G07-58	$60,000,000.00	$1,621,395.70
G08-07	$60,000,000.00	$719,509.61
G08-08GR	$60,000,000.00	$418,312.64
G08-09GR	$60,000,000.00	$521,279.16
G08-14	$60,000,000.00	$297,840.74
G08-15	$60,000,000.00	$297,840.74
G08-16	$60,000,000.00	$1,739,397.02
Upgrade Total		$60,000,000.00
Potter - Harrington East 230kV ckt1 Line Trap		
G07-33GR	$200,000.00	$58,220.84
G07-48GR	$200,000.00	$141,779.16
Upgrade Total		$200,000.00
Pringle - Hutchinson 115kV ckt1		
G07-05GR	$4,250,000.00	$4,250,000.00
Upgrade Total		$4,250,000.00
Replace Potter 345/115kV Auto with (2) 750MVA		
G07-05GR	$20,000,000.00	$1,090,900.75
G07-10GR	$20,000,000.00	$1,827,005.51
G07-26GR	$20,000,000.00	$1,187,553.58
G07-27GR	$20,000,000.00	$455,694.39
G07-33GR	$20,000,000.00	$1,222,672.04
G07-34GR	$20,000,000.00	$1,108,252.98
G07-41	$20,000,000.00	$661,675.12
G07-42	$20,000,000.00	$397,005.07
G07-46	$20,000,000.00	$655,729.56

Upgrade	E_C Cost	Allocated Costs
G07-48GR	$20,000,000.00	$3,327,577.59
G07-55GR	$20,000,000.00	$1,837,509.34
G07-56	$20,000,000.00	$1,654,187.81
G07-57	$20,000,000.00	$331,452.38
G08-07	$20,000,000.00	$666,102.15
G08-08GR	$20,000,000.00	$387,545.02
G08-09GR	$20,000,000.00	$445,230.20
G08-14	$20,000,000.00	$566,810.36
G08-15	$20,000,000.00	$566,810.36
G08-16	$20,000,000.00	$1,610,285.77
Upgrade Total		$20,000,000.00
Seward 115/69kV Transformer		
G07-64	$2,000,000.00	$2,000,000.00
Upgrade Total		$2,000,000.00
Spearville - Comanche 765kV ckt1		
G06-06	$175,000,000.00	$7,723,982.00
G06-49GR	$175,000,000.00	$9,442,187.49
G07-05GR	$175,000,000.00	$1,670,710.69
G07-08GR	$175,000,000.00	$1,213,740.22
G07-10GR	$175,000,000.00	$1,055,517.69
G07-12	$175,000,000.00	$4,882,820.64
G07-19GR	$175,000,000.00	$8,665,705.64
G07-26GR	$175,000,000.00	$686,086.50
G07-27GR	$175,000,000.00	$192,495.31
G07-30GR	$175,000,000.00	$809,160.14
G07-33GR	$175,000,000.00	$1,604,302.79
G07-34GR	$175,000,000.00	$463,497.37
G07-36	$175,000,000.00	$8,183,416.05
G07-37	$175,000,000.00	$8,183,416.05
G07-38	$175,000,000.00	$8,183,416.05
G07-40	$175,000,000.00	$17,455,728.97
G07-41	$175,000,000.00	$7,396,508.69
G07-42	$175,000,000.00	$4,437,905.21
G07-45GR	$175,000,000.00	$849,618.15
G07-46	$175,000,000.00	$2,066,459.74
G07-47	$175,000,000.00	$3,883,832.02
G07-48GR	$175,000,000.00	$2,105,077.95
G07-55GR	$175,000,000.00	$767,458.08
G07-56	$175,000,000.00	$18,491,271.73
G07-57	$175,000,000.00	$413,975.30
G07-58	$175,000,000.00	$9,536,609.36
G07-64	$175,000,000.00	$3,006,622.17

Upgrade	E_C Cost	Allocated Costs
G07-65	$175,000,000.00	$563,591.08
G08-01	$175,000,000.00	$3,031,108.99
G08-07	$175,000,000.00	$267,825.35
G08-08GR	$175,000,000.00	$155,751.94
G08-09GR	$175,000,000.00	$186,555.39
G08-11	$175,000,000.00	$17,343,501.37
G08-14	$175,000,000.00	$157,039.80
G08-15	$175,000,000.00	$157,039.80
G08-16	$175,000,000.00	$647,461.28
G08-17	$175,000,000.00	$7,419,900.39
G08-18	$175,000,000.00	$11,698,702.61
Upgrade Total		$175,000,000.00
Spearville 765/345kV Transformer		
G06-06	$20,000,000.00	$1,592,045.25
G06-49GR	$20,000,000.00	$380,691.53
G07-05GR	$20,000,000.00	$177,495.62
G07-08GR	$20,000,000.00	$333,381.83
G07-10GR	$20,000,000.00	$289,922.35
G07-12	$20,000,000.00	$554,577.56
G07-19GR	$20,000,000.00	$227,043.27
G07-26GR	$20,000,000.00	$188,449.53
G07-27GR	$20,000,000.00	$72,610.53
G07-30GR	$20,000,000.00	$222,254.55
G07-33GR	$20,000,000.00	$176,773.70
G07-34GR	$20,000,000.00	$180,118.59
G07-36	$20,000,000.00	$1,717,828.43
G07-37	$20,000,000.00	$1,717,828.43
G07-38	$20,000,000.00	$1,717,828.43
G07-40	$20,000,000.00	$2,345,873.20
G07-41	$20,000,000.00	$555,010.71
G07-42	$20,000,000.00	$333,006.43
G07-45GR	$20,000,000.00	$233,367.28
G07-46	$20,000,000.00	$189,250.86
G07-47	$20,000,000.00	$427,283.17
G07-48GR	$20,000,000.00	$578,208.35
G07-55GR	$20,000,000.00	$299,776.53
G07-56	$20,000,000.00	$1,387,526.79
G07-57	$20,000,000.00	$45,911.11
G07-58	$20,000,000.00	$384,498.45
G07-64	$20,000,000.00	$604,570.40
G07-65	$20,000,000.00	$185,569.07
G08-01	$20,000,000.00	$684,955.99
G08-07	$20,000,000.00	$119,765.27

Upgrade	E_C Cost	Allocated Costs
G08-08GR	$20,000,000.00	$69,751.74
G08-09GR	$20,000,000.00	$72,134.07
G08-11	$20,000,000.00	$476,610.40
G08-14	$20,000,000.00	$156,006.52
G08-15	$20,000,000.00	$156,006.52
G08-16	$20,000,000.00	$289,529.63
G08-17	$20,000,000.00	$550,029.48
G08-18	$20,000,000.00	$306,508.42
Upgrade Total		$20,000,000.00
Spearville 765/345kV Transformer #2		
G06-06	$20,000,000.00	$3,152,076.18
G07-19GR	$20,000,000.00	$449,520.95
G07-36	$20,000,000.00	$3,401,113.17
G07-37	$20,000,000.00	$3,401,113.17
G07-38	$20,000,000.00	$3,401,113.17
G07-40	$20,000,000.00	$4,644,573.41
G08-11	$20,000,000.00	$943,636.67
G08-18	$20,000,000.00	$606,853.29
Upgrade Total		$20,000,000.00
Sunnyside - LES 345kV ckt1		
G06-49GR	$200,000.00	$5,055.38
G07-05GR	$200,000.00	$4,655.16
G07-08GR	$200,000.00	$11,647.03
G07-10GR	$200,000.00	$6,578.19
G07-21	$200,000.00	$1,330.64
G07-26GR	$200,000.00	$4,275.83
G07-27GR	$200,000.00	$2,156.36
G07-30GR	$200,000.00	$7,764.69
G07-32GR	$200,000.00	$3,384.93
G07-33GR	$200,000.00	$4,808.95
G07-34GR	$200,000.00	$5,479.89
G07-41	$200,000.00	$8,975.37
G07-42	$200,000.00	$5,385.22
G07-43	$200,000.00	$8,368.20
G07-44	$200,000.00	$1,976.88
G07-45GR	$200,000.00	$8,152.92
G07-46	$200,000.00	$4,247.28
G07-48GR	$200,000.00	$13,040.48
G07-49GR	$200,000.00	$1,586.43
G07-50	$200,000.00	$2,278.41
G07-51	$200,000.00	$1,732.74
G07-52	$200,000.00	$4,302.18

Upgrade	E_C Cost	Allocated Costs
G07-55GR	$200,000.00	$9,157.68
G07-56	$200,000.00	$22,438.42
G07-57	$200,000.00	$1,260.29
G07-58	$200,000.00	$5,105.93
G07-60	$200,000.00	$1,337.69
G07-61	$200,000.00	$1,301.95
G07-62	$200,000.00	$5,468.18
G08-03	$200,000.00	$854.28
G08-07	$200,000.00	$4,010.33
G08-08GR	$200,000.00	$2,337.21
G08-09GR	$200,000.00	$2,186.07
G08-13	$200,000.00	$1,659.95
G08-14	$200,000.00	$7,013.89
G08-15	$200,000.00	$7,013.89
G08-16	$200,000.00	$9,694.88
G08-19	$200,000.00	$1,976.20
Upgrade Total		$200,000.00
Tatonga - Northwest 345kV ckt 2		
G06-06	$60,000,000.00	$996,169.58
G06-49GR	$60,000,000.00	$1,581,071.09
G07-05GR	$60,000,000.00	$533,482.55
G07-08GR	$60,000,000.00	$429,281.29
G07-10GR	$60,000,000.00	$484,832.06
G07-19GR	$60,000,000.00	$1,488,997.60
G07-21	$60,000,000.00	$2,497,890.88
G07-25	$60,000,000.00	$1,106,345.50
G07-26GR	$60,000,000.00	$315,140.84
G07-30GR	$60,000,000.00	$286,187.53
G07-33GR	$60,000,000.00	$511,248.30
G07-36	$60,000,000.00	$1,036,785.06
G07-37	$60,000,000.00	$1,036,785.06
G07-38	$60,000,000.00	$1,036,785.06
G07-40	$60,000,000.00	$2,535,505.79
G07-41	$60,000,000.00	$2,373,488.52
G07-42	$60,000,000.00	$1,424,093.11
G07-44	$60,000,000.00	$3,712,561.78
G07-45GR	$60,000,000.00	$300,496.90
G07-46	$60,000,000.00	$660,639.44
G07-48GR	$60,000,000.00	$971,755.12
G07-50	$60,000,000.00	$3,419,195.17
G07-51	$60,000,000.00	$1,195,840.09
G07-56	$60,000,000.00	$5,933,721.31
G07-57	$60,000,000.00	$131,674.14

Upgrade	E_C Cost	Allocated Costs
G07-58	$60,000,000.00	$1,596,881.80
G07-60	$60,000,000.00	$2,512,166.80
G07-61	$60,000,000.00	$1,953,825.81
G07-62	$60,000,000.00	$8,206,068.40
G08-03	$60,000,000.00	$1,036,338.99
G08-11	$60,000,000.00	$2,974,858.71
G08-18	$60,000,000.00	$2,010,146.76
G08-19	$60,000,000.00	$3,709,738.94
Upgrade Total		$60,000,000.00
Woodward - Tatonga 345kV ckt 2		
G06-06	$60,000,000.00	$1,020,304.04
G06-49GR	$60,000,000.00	$1,624,924.78
G07-05GR	$60,000,000.00	$553,014.71
G07-08GR	$60,000,000.00	$455,440.43
G07-10GR	$60,000,000.00	$504,122.04
G07-12	$60,000,000.00	$757,238.30
G07-19GR	$60,000,000.00	$1,524,501.36
G07-21	$60,000,000.00	$973,208.10
G07-25	$60,000,000.00	$1,202,865.03
G07-26GR	$60,000,000.00	$327,679.33
G07-27GR	$60,000,000.00	$155,246.52
G07-30GR	$60,000,000.00	$303,626.95
G07-33GR	$60,000,000.00	$530,573.33
G07-34GR	$60,000,000.00	$375,084.11
G07-36	$60,000,000.00	$1,060,865.26
G07-37	$60,000,000.00	$1,060,865.26
G07-38	$60,000,000.00	$1,060,865.26
G07-40	$60,000,000.00	$2,595,180.33
G07-41	$60,000,000.00	$2,439,286.60
G07-42	$60,000,000.00	$1,463,571.96
G07-44	$60,000,000.00	$1,442,614.95
G07-45GR	$60,000,000.00	$318,808.30
G07-46	$60,000,000.00	$682,158.17
G07-47	$60,000,000.00	$599,809.56
G07-48GR	$60,000,000.00	$1,010,495.26
G07-50	$60,000,000.00	$3,551,876.07
G07-51	$60,000,000.00	$1,264,666.76
G07-55GR	$60,000,000.00	$621,446.85
G07-56	$60,000,000.00	$6,098,216.50
G07-57	$60,000,000.00	$136,687.00
G07-58	$60,000,000.00	$1,641,174.03
G07-60	$60,000,000.00	$976,169.45
G07-61	$60,000,000.00	$2,029,643.47

Upgrade	E_C Cost	Allocated Costs
G07-62	$60,000,000.00	$8,524,502.57
G07-64	$60,000,000.00	$447,948.24
G07-65	$60,000,000.00	$89,185.14
G08-01	$60,000,000.00	$471,409.69
G08-03	$60,000,000.00	$1,080,605.23
G08-07	$60,000,000.00	$220,929.41
G08-08GR	$60,000,000.00	$128,527.91
G08-09GR	$60,000,000.00	$150,898.94
G08-11	$60,000,000.00	$3,045,837.01
G08-14	$60,000,000.00	$150,001.99
G08-15	$60,000,000.00	$150,001.99
G08-16	$60,000,000.00	$534,091.49
G08-17	$60,000,000.00	$1,140,394.98
G08-18	$60,000,000.00	$2,058,076.84
G08-19	$60,000,000.00	$1,445,358.56
Upgrade Total		$60,000,000.00
Woodward 345/138kV Transformer #2		
G07-51	$6,000,000.00	$3,287,895.71
G08-03	$6,000,000.00	$2,712,104.29
Upgrade Total		$6,000,000.00
Woodward 765/345kV Transformer		
G06-06	$20,000,000.00	$330,799.84
G06-49GR	$20,000,000.00	$525,139.41
G07-05GR	$20,000,000.00	$169,388.08
G07-08GR	$20,000,000.00	$293,993.74
G07-10GR	$20,000,000.00	$308,624.36
G07-12	$20,000,000.00	$526,484.34
G07-19GR	$20,000,000.00	$492,815.73
G07-21	$20,000,000.00	$276,613.10
G07-25	$20,000,000.00	$885,170.87
G07-26GR	$20,000,000.00	$200,605.84
G07-27GR	$20,000,000.00	$53,924.30
G07-30GR	$20,000,000.00	$195,995.83
G07-33GR	$20,000,000.00	$161,736.54
G07-34GR	$20,000,000.00	$130,407.92
G07-36	$20,000,000.00	$343,428.89
G07-37	$20,000,000.00	$343,428.89
G07-38	$20,000,000.00	$343,428.89
G07-40	$20,000,000.00	$839,534.23
G07-41	$20,000,000.00	$784,383.15
G07-42	$20,000,000.00	$470,629.89
G07-44	$20,000,000.00	$410,048.20

Upgrade	E_C Cost	Allocated Costs
G07-45GR	$20,000,000.00	$205,795.62
G07-46	$20,000,000.00	$214,077.82
G07-47	$20,000,000.00	$413,716.58
G07-48GR	$20,000,000.00	$610,051.55
G07-50	$20,000,000.00	$734,330.06
G07-51	$20,000,000.00	$289,849.91
G07-55GR	$20,000,000.00	$216,097.03
G07-56	$20,000,000.00	$1,960,957.86
G07-57	$20,000,000.00	$41,706.54
G07-58	$20,000,000.00	$530,390.80
G07-60	$20,000,000.00	$277,465.95
G07-61	$20,000,000.00	$419,617.18
G07-62	$20,000,000.00	$1,762,392.14
G07-64	$20,000,000.00	$308,469.88
G07-65	$20,000,000.00	$63,120.69
G08-01	$20,000,000.00	$328,162.15
G08-03	$20,000,000.00	$229,033.77
G08-07	$20,000,000.00	$76,985.70
G08-08GR	$20,000,000.00	$44,791.52
G08-09GR	$20,000,000.00	$52,452.15
G08-11	$20,000,000.00	$984,650.02
G08-14	$20,000,000.00	$54,305.97
G08-15	$20,000,000.00	$54,305.97
G08-16	$20,000,000.00	$186,111.07
G08-17	$20,000,000.00	$778,467.29
G08-18	$20,000,000.00	$665,301.23
G08-19	$20,000,000.00	$410,811.54
Upgrade Total		$20,000,000.00
Woodward 765/345kV Transformer #2		
G06-06	$20,000,000.00	$718,989.59
G06-49GR	$20,000,000.00	$1,141,384.37
G07-05GR	$20,000,000.00	$368,163.02
G07-19GR	$20,000,000.00	$1,071,129.22
G07-33GR	$20,000,000.00	$351,532.48
G07-36	$20,000,000.00	$746,438.67
G07-37	$20,000,000.00	$746,438.67
G07-38	$20,000,000.00	$746,438.67
G07-40	$20,000,000.00	$1,824,717.84
G07-41	$20,000,000.00	$1,704,847.60
G07-42	$20,000,000.00	$1,022,908.56
G07-46	$20,000,000.00	$465,295.64
G07-56	$20,000,000.00	$4,262,118.99
G07-57	$20,000,000.00	$90,648.69

Upgrade	E_C Cost	Allocated Costs
G07-58	$20,000,000.00	$1,152,798.21
G08-11	$20,000,000.00	$2,140,125.31
G08-18	$20,000,000.00	$1,446,024.45
Upgrade Total		$20,000,000.00

All Upgrades Total **$2,379,111,000.00**

H: FCITC Analysis (No Upgrades)

See Attachment

I: ACCC Analysis (Upgrades Included)

See Attachment

J: Electrically Isolated Interconnection Request Feasibility Studies

Feasibility Study
For
Generation Interconnection Request
GEN-2007-053

SPP Tariff Studies
(#GEN-2007-053)

December, 2008

Executive Summary

<OMITTED TEXT> (Customer) has requested a Feasibility Study for the purpose of interconnecting 150 MW of wind generation within the control area of Missouri Public Service (d/b/a Aquila Networks – Missouri Public Service) (MIPU) located in Nodaway County, Missouri. The proposed method of interconnection is a new 161 kV line terminal and breaker to be installed at a new ring-bus switching station to be located on the existing Maryville – Midway 161 kV transmission line, owned by MIPU. This new station was previously proposed for construction for Generation Interconnect Requests #GEN-2006-014, #GEN-2006-017, and GEN-2007-017. The proposed in-service date of this request is January, 2010.

Power flow analysis has indicated that for the powerflow cases studied, it is possible to interconnect the 150 MW of generation with transmission system reinforcements within the local transmission system. The need for reactive compensation for this interconnection request will be evaluated in the Impact Study based on the wind turbine manufacturer and type requested by the Customer. Dynamic Stability studies performed as part of the System Impact Study will provide additional guidance as to whether the required reactive compensation can be static or a portion must be dynamic (such as a SVC).

The requirement to interconnect the 150 MW of wind generation into the proposed substation consists of adding a new 161 kV line terminal and breaker at a previously proposed ring-bus switching station. This new station was originally proposed for GI Requests #GEN-2006-014, #GEN-2006-017, and #GEN-2007-017 and will be constructed and maintained by MIPU. The Customer did not propose a specific route for the 161 kV line extending to serve its 161/34.5 kV collection facilities. It is assumed that obtaining all necessary right-of-way for the new transmission line to serve its facilities will not be a significant expense.

The total minimum cost for building the required facilities for this 150 MW of generation is $1,000,000. These costs are shown in Tables 1 and 2. These costs are shown in Tables 1 and 2. Depending on the status of prior queued projects, interconnection costs for this request could be as much as $6,000,000. Network constraints in the Associated Electric Cooperatives, Inc. (AECI), Kansas City Power & Light (KCPL), MidAmerican Energy Company (MEC), MIPU, and Westar Energy (WERE) transmission systems that were identified are shown in Table 3.

These Network constraints will have to be verified with a Transmission Service Request (TSR) and associated studies. Network Constraints are in the local area of the new generation when this generation is sunk throughout the SPP footprint for the Energy Resource (ER) Interconnection request. With a defined source and sink in a Transmission Service Request, this list of Network Constraints will be refined and expanded to account for all Network Upgrade requirements. This cost does not include building the 161 kV line from the Customer 161/34.5 kV collector substation into the point of interconnection.

In Table 4, a value of Available Transfer Capability (ATC) associated with each overloaded facility is included. These values may be used by the Customer for future analyses including the determination of lower generation capacity levels that may be installed. When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

There are several other proposed generation additions in the general area of the Customer's facility. It was assumed in this preliminary analysis that not all of these other projects within the AECI, MIPU, and KCPL control areas will be in service. Those previously queued projects that have advanced to nearly complete phases were included in this Feasibility Study. In the event that another request for a generation interconnection with a higher priority withdraws, then this request may have to be re-evaluated to determine the local Network Constraints.

The required interconnection costs listed in Tables 1 and 2 and other upgrades associated with Network Constraints do not include all costs associated with the deliverability of the energy to final customers. These costs are determined by separate studies if the Customer submits a Transmission Service Request through Southwest Power Pool's OASIS.

Contents

Tables

Figures

Introduction

<OMITTED TEXT> (Customer) has requested a Feasibility Study for the purpose of interconnecting 150 MW of wind generation within the control area of Missouri Public Service (d/b/a Aquila Networks – Missouri Public Service) (MIPU) located in Nodaway County, Missouri. The proposed method of interconnection is a new 161 kV line terminal and breaker to be installed at a new ring-bus switching station to be located on the existing Maryville – Midway 161 kV transmission line, owned by MIPU. This new station was previously proposed for construction for Generation Interconnect Requests #GEN-2006-014, #GEN-2006-017, and GEN-2007-017. The proposed in-service date of this request is January, 2010.

Interconnection Facilities

The primary objective of this study is to identify the system problems associated with connecting the generation to the area transmission system. The Feasibility and other subsequent Interconnection Studies are designed to identify attachment facilities, Network Upgrades and other Direct Assignment Facilities needed to accept power into the grid at the interconnection receipt point.

The requirement to interconnect the 150 MW of wind generation into the proposed substation consists of adding a new 161 kV line terminal and breaker at a previously proposed ring-bus switching station. This new station was originally proposed for GI Requests #GEN-2006-014, #GEN-2006-017, and GEN-2007-017 and will be constructed and maintained by MIPU. The Customer did not propose a specific route for the 161 kV line extending to serve its 161/34.5 kV collection facilities. It is assumed that obtaining all necessary right-of-way for the new transmission line to serve its facilities will not be a significant expense.

A preliminary one-line drawing of the interconnection and direct assigned facilities are shown in Figure 1.

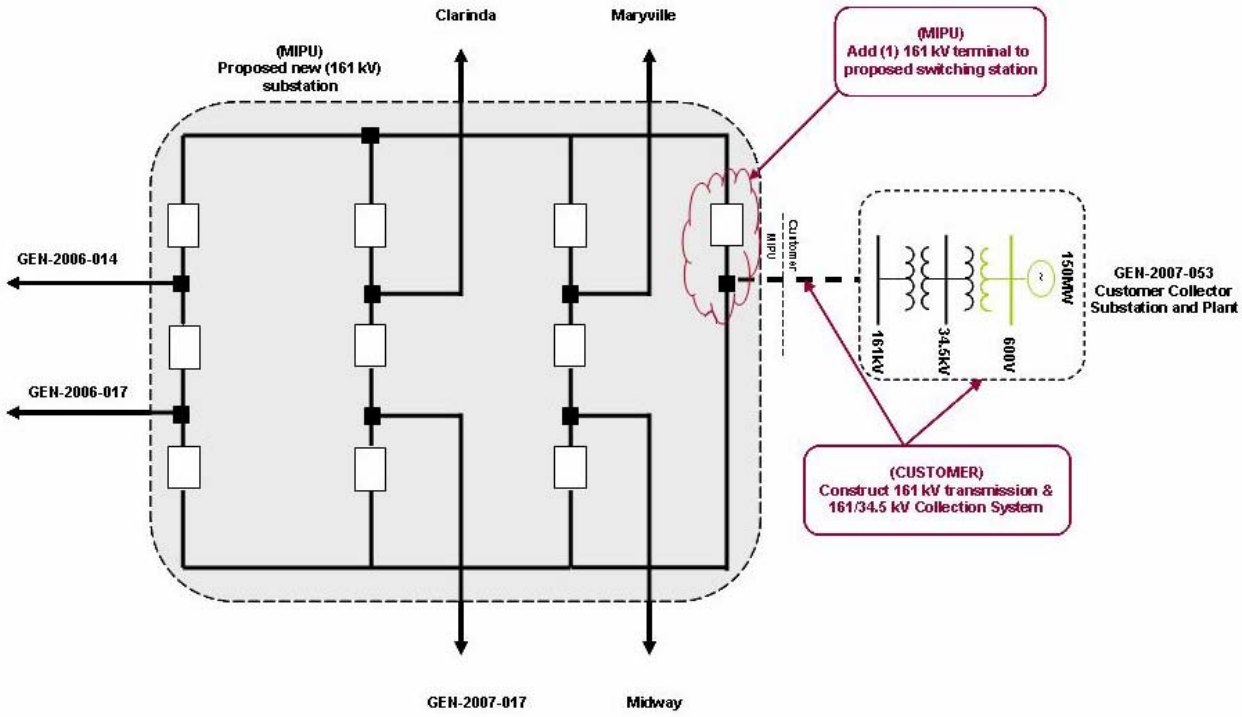

Figure 1: Proposed Method of Interconnection

(Final design to be determined)

Interconnection Estimated Costs

The minimum cost for adding a new 161 kV line terminal and breaker to the previously proposed ring-bus switching station and terminating the transmission line serving GEN-2007-053 facilities is estimated at $1,000,000. These costs are listed in Tables 1 and 2. These estimates will be refined during the development of the System Impact Study based on the final designs. This cost does not include building the Customer's 161 kV transmission line extending from the point of interconnection to serve its 161/34.5 kV collection facilities. This cost also does not include the Customer's 161/34.5 kV collector substation, all of which should be determined by the Customer. The Customer is responsible for these 161 kV – 34.5 kV facilities up to the point of interconnection. Other Network Constraints in the Associated Electric Cooperatives, Inc. (AECI), Kansas City Power & Light (KCPL), MidAmerican Energy Company (MEC), MIPU, and Westar Energy (WERE) transmission systems that were identified are shown in Table 3.

The costs listed in Tables 1 and 2 require that the previous queued projects, GEN-2006-014, GEN-2006-017, and GEN-2007-017 remain in the GI queue. Should one of the prior queued projects withdraw from the queue, the costs associated with interconnecting this request will be modified to reflect those listed in the Facility Study for GEN-2007-017, which at this time has been estimated at $6,000,000. Should both prior queued projects withdraw from the GI queue, the costs associated with interconnecting this request will be modified to reflect those listed in the Facility Study for GEN-2006-017, which at this time has been estimated at $3,500,000.

These costs do not include any cost that might be associated with short circuit study results or dynamic stability study results. These costs will be determined when and if a System Impact Study is conducted.

Table 1: Direct Assignment Facilities

FACILITY	ESTIMATED COST (2008 DOLLARS)
CUSTOMER – (1) 161/34.5 kV Customer collector substation facilities.	*
CUSTOMER – (1) 161 kV transmission line from Customer collector substation to the proposed station to be located on the Maryville – Midway 161 kV transmission line.	*
CUSTOMER – 34.5 kV, 60 Mvar capacitor bank(s) in the Customer substation.	*
CUSTOMER – Right-of-Way for all Customer facilities.	*
TOTAL	*****

* *Estimates of cost to be determined.*

Table 2: Required Interconnection Network Upgrade Facilities

FACILITY	ESTIMATED COST (2008 DOLLARS)
MIPU – (1) 161 kV line terminal and breaker for GI Request #GEN-2007-053.	$1,000,000
TOTAL	*****

* *Estimates of cost to be determined.*

Powerflow Analysis

A powerflow analysis was conducted for the facility using modified versions of the 2009 winter peak model, the 2012 summer and winter peak models, and the 2017 summer peak model. The output of the Customer's facility was offset in each model by a reduction in output of existing online SPP generation. This method allows the request to be studied as an Energy Resource (ER) Interconnection request. The proposed in-service date of the generation is January, 2010. The available seasonal models used were through the 2017 Summer Peak of which is the end of the current SPP planning horizon.

Following current practice, this analysis was conducted assuming that previous queued requests in the immediate area of this interconnect request were in service. The analysis of the Customer's project indicates that, given the requested generation level of 150 MW and location, additional criteria violations will occur on the existing AECI, KCPL, MEC, MIPU, and WERE transmission systems under steady state and contingency conditions in the peak seasons. Table 3 lists these overloaded facilities.

In Table 4, a value of Available Transfer Capability (ATC) associated with each overloaded facility is included. These values may be used by the Customer to determine lower generation capacity levels that may be installed. When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. When a facility is overloaded for more than one contingency, only the highest loading on the facility for each season is included in the table.

Voltage violations for load serving buses within the SPP footprint were also observed for some of the contingencies listed in Table 3. These voltage violations have not been listed in this report.

The need for reactive compensation will be determined during the Impact Study. The need for reactive compensation will be based on the Customer's choice of wind turbine make and manufacturer. Dynamic Stability studies performed as part of the System Impact Study will provide additional guidance as to whether the reactive compensation can be static or a portion must be dynamic (such as a SVC or STATCOM). It is possible that an SVC or STATCOM device will be required at the Customer facility because of FERC Order 661A Low Voltage Ride-Through Provisions (LVRT) which went into effect January 1, 2006. FERC Order 661A orders that wind farms stay on-line for 3-phase faults at the point of interconnection even if that requires the installation of a SVC or STATCOM device.

There are several other proposed generation additions in the general area of the Customer's facility. Some of the local projects that were previously queued were assumed to be in service in this Feasibility Study. Not all local projects that were previously queued and have advanced to nearly complete phases were included in this Feasibility Study.

Powerflow Analysis Methodology

The Southwest Power Pool (SPP) criteria states that: “The transmission system of the SPP region shall be planned and constructed so that the contingencies as set forth in the Criteria will meet the applicable NERC Planning Standards for System Adequacy and Security – Transmission System Table l hereafter referred to as NERC Table l) and its applicable standards and measurements”.

Using the created models and the ACCC function of PSS\E, single contingencies in portions or all of the modeled control areas of Sunflower Electric Power Corporation (SUNC), Missouri Public Service (MIPU), Westar Energy (WERE), Kansas City Power & Light (KCPL), West Plains (WEPL), Midwest Energy (MIDW), Oklahoma Gas and Electric (OKGE), American Electric Power West (AEPW), Grand River Dam Authority (GRDA), Southwestern Public Service Company (SPS), Western Farmers Electric Cooperative (WFEC) and other control areas were applied and the resulting scenarios analyzed. This satisfies the ‘more probable’ contingency testing criteria mandated by NERC and the SPP criteria.

Powerflow Results

Table 3: Network Constraints

AREA	OVERLOADED ELEMENT
AECI	FAIRPORT - HARVIEL E. 161KV CKT 1
AECI	HARVIEL E. - NODAWAY 161KV CKT 1
KCPL/WERE	IATAN - STRANGER CREEK 345KV CKT 1
MEC/MIPU	CLRNDA 5 161.00 - MARYVLE2-NEW161.00 161KV CKT 1
MIPU	MARYVILLE - MARYVILLE 161KV CKT 1
MIPU	MARYVLE2-NEW161.00 - MIDWAY 161KV CKT 1
MIPU	MIDWAY - ST JOE 161KV CKT 1
MIPU/KCPL	ALABAMA - NASHUA 161KV CKT 1
WERE	ROSE HILL (ROSEHL1X) 345/138/13.8KV TRANSFORMER CKT 1
AECI	Associated Electric Cooperative Inc.
KCPL	Kansas City Power & Light
MEC	MidAmerican Energy Company
MIPU	Missouri Public Service
WERE	Westar Energy

Table 4: Contingency Analysis

SEASON	OVERLOADED ELEMENT	RATING (MVA)	LOADING (%)	ATC (MW)	CONTINGENCY
09WP	CLRNDA 5 161.00 - MARYVLE2-NEW161.00 161KV CKT 1	192	131	0	CRESTON5 161.00 - MARYVILLE 161KV CKT 1
09WP	MARYVILLE - MARYVILLE 161KV CKT 1	200	203	0	LAKE ROAD-ALABAMA
12SP	CLRNDA 5 161.00 - MARYVLE2-NEW161.00 161KV CKT 1	192	125	0	CRESTON5 161.00 - MARYVILLE 161KV CKT 1
12SP	IATAN - STRANGER CREEK 345KV CKT 1	1195	120	0	LAKE ROAD-NASHUA
12WP	IATAN - STRANGER CREEK 345KV CKT 1	1195	101	98	LAKE ROAD-NASHUA
12WP	MARYVILLE - MARYVILLE 161KV CKT 1	200	205	0	LAKE ROAD-NASHUA
12WP	MARYVLE2-NEW161.00 - MIDWAY 161KV CKT 1	182	166	0	ST JOE 7 345-FAIRPT 7 345
12WP	MIDWAY - ST JOE 161KV CKT 1	182	156	0	ST JOE 7 345-FAIRPT 7 345
12WP	CLRNDA 5 161.00 - MARYVLE2-NEW161.00 161KV CKT 1	192	138	0	CRESTON5 161.00 - MARYVILLE 161KV CKT 1
17SP	CLRNDA 5 161.00 - MARYVLE2-NEW161.00 161KV CKT 1	192	159	0	CRESTON5 161.00 - MARYVILLE 161KV CKT 1
17SP	FAIRPORT - HARVIEL E. 161KV CKT 1	247	125	0	CRESTON5 161.00 - MARYVILLE 161KV CKT 1
17SP	HARVIEL E. - NODAWAY 161KV CKT 1	247	104	118	CRESTON5 161.00 - MARYVILLE 161KV CKT 1
17SP	IATAN - STRANGER CREEK 345KV CKT 1	1195	117	0	LAKE ROAD-NASHUA
17SP	MARYVLE2-NEW161.00 - MIDWAY 161KV CKT 1	182	167	0	CRESTON5 161.00 - MARYVILLE 161KV CKT 1
17SP	MIDWAY - ST JOE 161KV CKT 1	182	156	0	CRESTON5 161.00 - MARYVILLE 161KV CKT 1

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this Table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Conclusion

The minimum cost of interconnecting the Customer's interconnection request is estimated at $1,000,000 for Direct Assignment Facilities and Network Upgrades. Depending on the status of prior queued projects, interconnection costs for this request could be as much as $6,000,000. At this time, the cost estimates for other Direct Assignment facilities including those in Tables 1 and 2 have not been defined by the Customer. In addition to the Customer's proposed interconnection facilities, the Customer may be responsible for installing reactive compensation in the Customer's substation for reactive support. As stated earlier, some but not all of the local projects that were previously queued are assumed to be in service in this Feasibility Study. These costs exclude upgrades of other transmission facilities that were listed in Table 3 of which are Network Constraints.

In Table 4, a value of Available Transfer Capability (ATC) associated with each overloaded facility is included. These values may be used by the Customer to determine lower generation capacity levels that may be installed. When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. When a facility is overloaded for more than one contingency, only the highest loading on the facility for each season is included in the table.

These interconnection costs do not include any cost that may be associated with short circuit or transient stability analysis. These studies will be performed if the Customer signs a System Impact Study Agreement. At the time of the System Impact Study, a better determination of the interconnection facilities may be available.

The required interconnection costs listed in Tables 1 and 2 and other upgrades associated with Network Constraints do not include all costs associated with the deliverability of the energy to final customers. These costs are determined by separate studies if the Customer submits a Transmission Service Request through Southwest Power Pool's OASIS.

Appendix A: Point of Interconnection Area Map

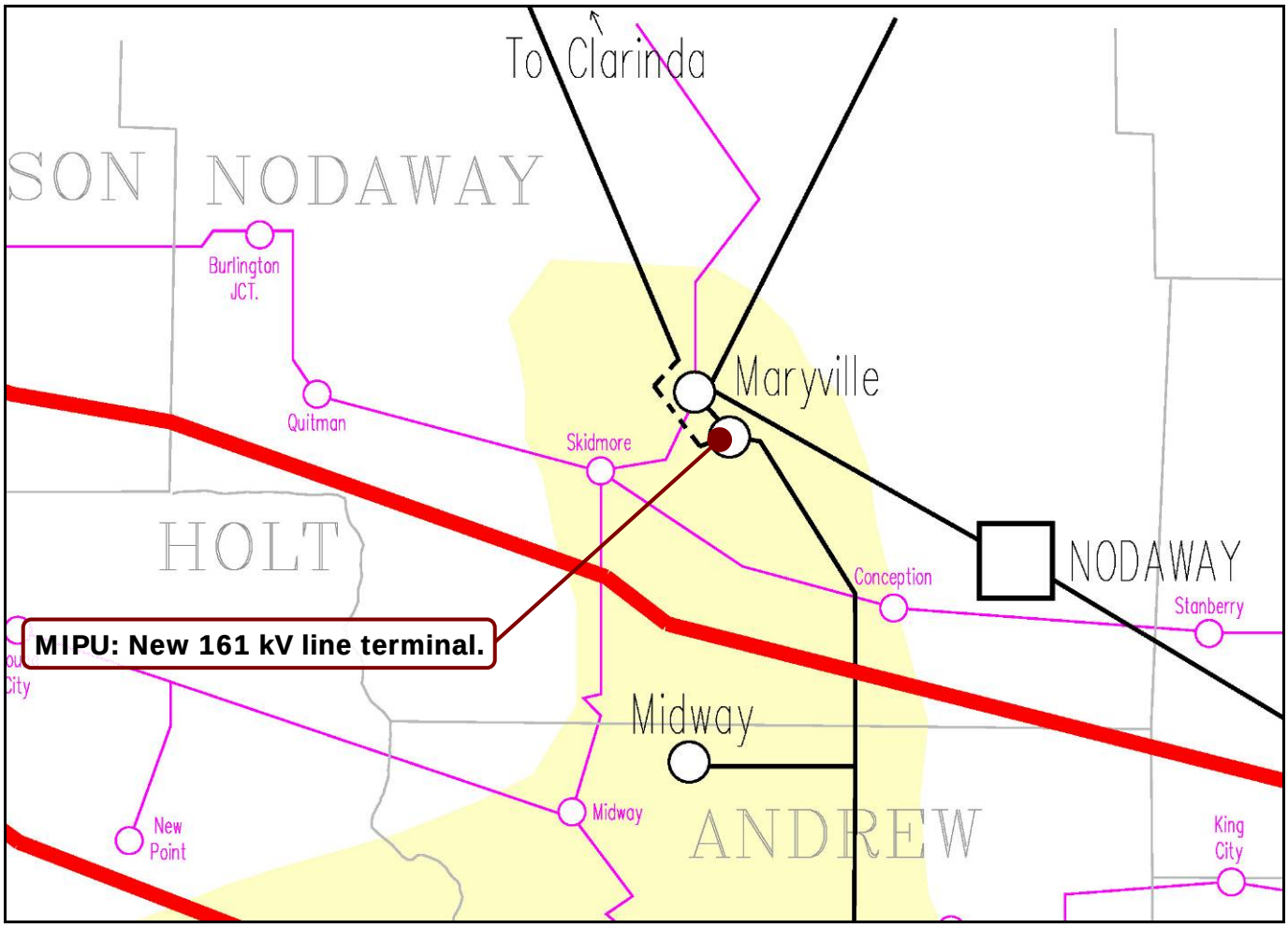

Figure 2: Point of Interconnection Area Map

Feasibility Study
For
Generation Interconnection Request
GEN-2008-010

SPP Tariff Studies
(#GEN-2008-010)

December, 2008

Executive Summary

<OMITTED TEXT> (Customer) has requested a Feasibility Study for the purpose of raising the rating of a previously studied generator, queue # GEN-2006-038 within the control area of Western Farmers Electric Cooperative (WFEC) located in Choctaw County, Oklahoma. The proposed interconnection point is the proposed Hugo 345 kV substation, owned by WFEC. The proposed in-service date is January, 2013. Previously, the plant was studied at 750 MW rating in the interconnection study for GEN-2006-038. The customer has requested an increase of capacity to 800 MW rating.

Power flow analysis has indicated that for the powerflow cases studied, it is possible to interconnect the 50 MW of incremental generation with transmission system reinforcements within the local transmission system. The requirement to interconnect the 50 MW of incremental generation at the proposed Hugo 345kV substation does not require any additional interconnection facilities.

This study has determined there are no additional requirements for GEN-2006-038 from the costs given in the Facility Study for GEN-2006-038. These costs are shown in Tables 1 and 2. Network constraints that were identified are shown in Table 3. These Network constraints will have to be verified with a Transmission Service Request (TSR) and associated studies. Network Constraints are in the local area of the new generation when this generation is sunk throughout the SPP footprint for the Energy Resource (ER) Interconnection request. With a defined source and sink in a Transmission Service Request, this list of Network Constraints will be refined and expanded to account for all Network Upgrade requirements.

In Table 4, a value of Available Transfer Capability (ATC) associated with each overloaded facility is included. These values may be used by the Customer for future analyses including the determination of lower generation capacity levels that may be installed. When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

There are several other proposed generation additions in the general area of the Customer's facility. It was assumed in this preliminary analysis that not all of these other projects within the SPP control areas will be in service. Those previously queued projects that have advanced to nearly complete phases were included in this Feasibility Study. In the event that another request for a generation interconnection with a higher priority withdraws, then this request may have to be re-evaluated to determine the local Network Constraints.

The required interconnection costs listed in Tables 1 and 2 and other upgrades associated with Network Constraints do not include all costs associated with the deliverability of the energy to final customers. These costs are determined by separate studies if the Customer submits a Transmission Service Request through Southwest Power Pool's OASIS.

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<OMITTED TEXT> (Customer) has requested a Feasibility Study for the purpose of raising the rating of a previously studied generator, queue # GEN-2006-038 within the control area of Western Farmers Electric Cooperative (WFEC) located in Choctaw County, Oklahoma. The proposed interconnection point is the proposed Hugo 345 kV substation, owned by WFEC. The proposed in-service date is January, 2013. Previously, the plant was studied at 750 MW rating in the interconnection study for GEN-2006-038. The customer has requested an increase of capacity to 800 MW rating.

Interconnection Facilities

The primary objective of this study is to identify the system problems associated with connecting the generation to the area transmission system. The Feasibility and other subsequent Interconnection Studies are designed to identify attachment facilities, Network Upgrades and other Direct Assignment Facilities needed to accept power into the grid at the interconnection receipt point.

The requirement to interconnect the 50 MW of additional generation on the proposed Hugo 345 kV substation does not require additional interconnection facilities to the facilities required for GEN-2006-038.

Network Constraints that have been identified are shown in Table 3. With a defined source and sink in a Transmission Service Request (TSR), this list of Network Constraints will be refined and expanded to account for all Network Upgrade requirements.

A preliminary one-line drawing of the interconnection and direct assigned facilities are shown in Figure 1.

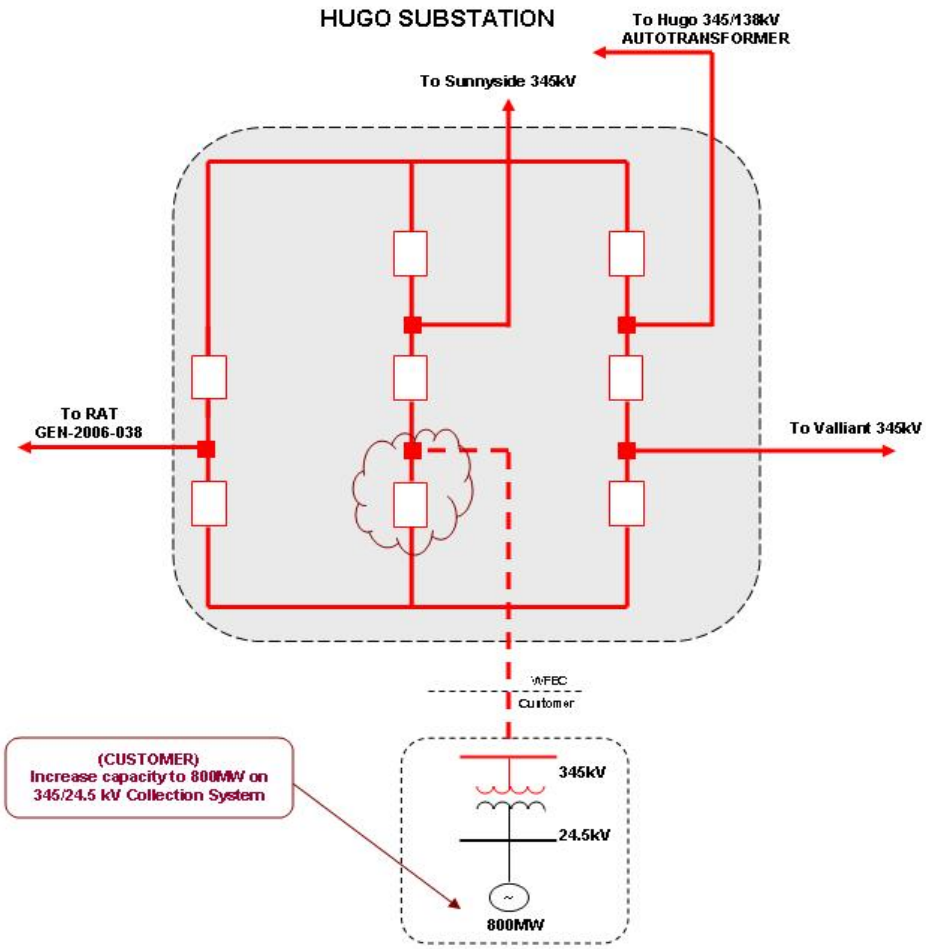

Figure 1: Proposed Method of Interconnection

(Final design to be determined)

Interconnection Estimated Costs

No additional interconnection facilities are necessary for the interconnection of GEN-2008-010. For full interconnection costs of the facility, the Facility Study for GEN-2006-038 should be consulted.

The costs of interconnecting the facility to the WFEC transmission system are listed in Table 1 & 2. **These costs do not include any cost that might be associated with short circuit study results or dynamic stability study results.** These costs will be determined when and if a System Impact Study is conducted.

Table 1: Direct Assignment Facilities

FACILITY	ESTIMATED COST (2008 DOLLARS)
CUSTOMER – 345/24.5 kV substation facilities.	*
CUSTOMER – 345 kV line between Customer substation and Hugo (WFEC) 345 kV substation.	*
CUSTOMER – Right-of-Way for all Customer facilities.	*
TOTAL	*****

* *Estimates of cost to be determined.*

Table 2: Required Interconnection Network Upgrade Facilities

FACILITY	ESTIMATED COST (2008 DOLLARS)
WFEC – 345 kV circuit-breaker and line terminal to be built for generation request #GEN-2006-038 on the Hugo 345 kV substation. Work to include associated switches, control relaying, high speed communications, metering and related equipment and all related structures.	Cost to GEN-2006-038
TOTAL	**$0**

* *Estimates of cost to be determined.*

Powerflow Analysis

A powerflow analysis was conducted for the facility using the 2012 summer and winter peak models and the 2017 summer peak model. The output of the Customer's facility was offset in each model by a reduction in output of existing online SPP generation. This method allows the request to be studied as an Energy Resource (ER) Interconnection request. The proposed in-service date of the generation is January, 2013. The available seasonal models used were through the 2017 Summer Peak of which is the end of the current SPP planning horizon.

Following current practice, this analysis was conducted assuming that previous queued requests in the immediate area of this interconnect request were in service. The analysis of the Customer's project indicates that, given the requested generation level of 50 MW and location, no additional criteria violations will occur on the existing transmission system under steady state and contingency conditions in the peak seasons. Table 3 lists these overloaded facilities.

In Table 4, a value of Available Transfer Capability (ATC) associated with each overloaded facility is included. These values may be used by the Customer to determine lower generation capacity levels that may be installed. When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. When a facility is overloaded for more than one contingency, only the highest loading on the facility for each season is included in the table.

There are several other proposed generation additions in the general area of the Customer's facility. Some of the local projects that were previously queued were assumed to be in service in this Feasibility Study. Not all local projects that were previously queued and have advanced to nearly complete phases were included in this Feasibility Study.

Powerflow Analysis Methodology

The Southwest Power Pool (SPP) criteria states that: “The transmission system of the SPP region shall be planned and constructed so that the contingencies as set forth in the Criteria will meet the applicable NERC Planning Standards for System Adequacy and Security – Transmission System Table l hereafter referred to as NERC Table l) and its applicable standards and measurements”.

Using the created models and the ACCC function of PSS\E, single contingencies in portions or all of the modeled control areas of Sunflower Electric Power Corporation (SUNC), Missouri Public Service (MIPU), Westar Energy (WERE), Kansas City Power & Light (KCPL), West Plains (WEPL), Midwest Energy (MIDW), Oklahoma Gas and Electric (OKGE), American Electric Power West (AEPW), Grand River Dam Authority (GRDA), Southwestern Public Service Company (SPS), Western Farmers Electric Cooperative (WFEC) and other control areas were applied and the resulting scenarios analyzed. This satisfies the ‘more probable’ contingency testing criteria mandated by NERC and the SPP criteria.

Powerflow Results

Table 3: Network Constraints

AREA	OVERLOADED ELEMENT
	None Identified

Table 4: Contingency Analysis

SEASON	OVERLOADED ELEMENT	RATING (MVA)	LOADING (%)	ATC (MW)	CONTINGENCY
12SP	None Identified			50	
12WP	None Identified			50	
17SP	None Identified			50	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this Table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Conclusion

No additional interconnection facilities are necessary for the interconnection of GEN-2008-010. For full interconnection costs of the facility, the Facility Study for GEN-2006-038 should be consulted. At this time, the cost estimates for other Direct Assignment facilities including those in Tables 1 and 2 have not been defined by the Customer. As stated earlier, some but not all of the local projects that were previously queued are assumed to be in service in this Feasibility Study. These costs exclude upgrades of other transmission facilities that were listed in Table 3 of which are Network Constraints.

In Table 4, a value of Available Transfer Capability (ATC) associated with each overloaded facility is included. These values may be used by the Customer to determine lower generation capacity levels that may be installed. When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. When a facility is overloaded for more than one contingency, only the highest loading on the facility for each season is included in the table.

These interconnection costs do not include any cost that may be associated with short circuit or transient stability analysis. These studies will be performed if the Customer signs a System Impact Study Agreement. At the time of the System Impact Study, a better determination of the interconnection facilities may be available.

The required interconnection costs listed in Tables 1 and 2 and other upgrades associated with Network Constraints do not include all costs associated with the deliverability of the energy to final customers. These costs are determined by separate studies if the Customer submits a Transmission Service Request through Southwest Power Pool's OASIS.

Appendix A: Point of Interconnection Area Map

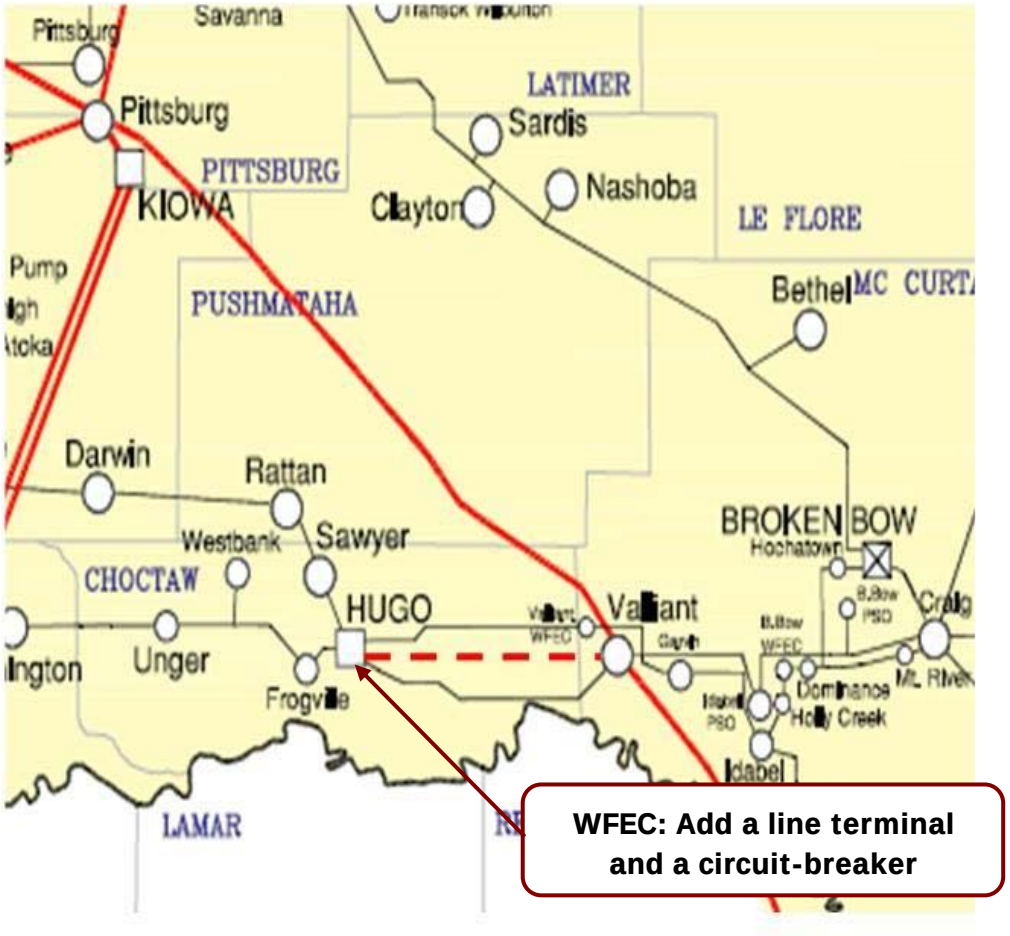

Figure 2: Point of Interconnection Area Map

Feasibility Study
For
Generation Interconnection Request
GEN-2008-012

SPP Tariff Studies
(#GEN-2008-012)

December, 2008

Executive Summary

<OMITTED TEXT> (Customer) has requested a Feasibility Study for the purpose of interconnecting 150 MW of wind generation within the control area of Empire District Electric Company (EMDE) located in Benton County, Arkansas. The proposed interconnection point is on the existing Noel – Decatur 161 kV transmission line, owned by EMDE. The proposed in-service date of this request is October, 2010.

Power flow analysis has indicated that for the power flow cases studied, it is possible to interconnect the 150 MW of generation with transmission system reinforcements within the local transmission system. The need for reactive compensation for this interconnection request will be evaluated in the Impact Study based on the wind turbine manufacturer and type requested by the Customer. Dynamic Stability studies performed as part of the System Impact Study will provide additional guidance as to whether the required reactive compensation can be static or a portion must be dynamic (such as a SVC).

The requirement to interconnect the 150 MW of wind generation on the existing Noel – Decatur 161kV transmission line consists of adding a new 161 kV three-breaker ring-bus switching station. The new station will be constructed and maintained by EMDE. The Customer did not propose a specific route for the 161 kV line extending to serve its 161/34.5 kV collection facilities. It is assumed that obtaining all necessary right-of-way for the new transmission line to serve its facilities will not be a significant expense.

The total minimum cost for building the required facilities for this 150 MW of generation is $2,500,000. These costs are shown in Tables 1 and 2. This cost does not include building the 161 kV line from the Customer 161/34.5 kV collector substation into the point of interconnection. This cost also does not include the Customer's 161/34.5 kV collector substation or possible need for reactive compensation. Network constraints in the American Electric Power West (AEPW) system that were identified are shown in Table 3.

These Network constraints will have to be verified with a Transmission Service Request (TSR) and associated studies. Network Constraints are in the local area of the new generation when this generation is sunk throughout the SPP footprint for the Energy Resource (ER) Interconnection request. With a defined source and sink in a Transmission Service Request, this list of Network Constraints will be refined and expanded to account for all Network Upgrade requirements.

In Table 4, a value of Available Transfer Capability (ATC) associated with each overloaded facility is included. These values may be used by the Customer for future analyses including the determination of lower generation capacity levels that may be installed. When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

The required interconnection costs listed in Tables 1 and 2 and other upgrades associated with Network Constraints do not include all costs associated with the deliverability of the energy to final customers. These costs are determined by separate studies if the Customer submits a Transmission Service Request through Southwest Power Pool's OASIS.

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Introduction

<OMITTED TEXT> (Customer) has requested a Feasibility Study for the purpose of interconnecting 150 MW of wind generation within the control area of Empire District Electric Company (EMDE) located in Benton County, Arkansas. The proposed interconnection point is on the existing Noel – Decatur 161 kV transmission line, owned by EMDE. The proposed in-service date of this request is October, 2010.

Interconnection Facilities

The primary objective of this study is to identify the system problems associated with connecting the generation to the area transmission system. The Feasibility and other subsequent Interconnection Studies are designed to identify attachment facilities, Network Upgrades and other Direct Assignment Facilities needed to accept power into the grid at the interconnection receipt point.

The requirement to interconnect the 150 MW of wind generation on the existing Noel – Decatur 161kV transmission line consists of adding a new 161 kV three-breaker ring-bus switching station. The new station will be constructed and maintained by EMDE. The Customer did not propose a specific route for the 161 kV line extending to serve its 161/34.5 kV collection facilities. It is assumed that obtaining all necessary right-of-way for the new transmission line to serve its facilities will not be a significant expense.

Other Network Constraints in the Empire District Electric Company transmission systems that were identified are shown in Table 3. With a defined source and sink in a Transmission Service Request (TSR) this list of Network Constraints will be refined and expanded to account for all Network Upgrade requirements.

A preliminary one-line drawing of the interconnection and direct assigned facilities are shown in Figure 1.

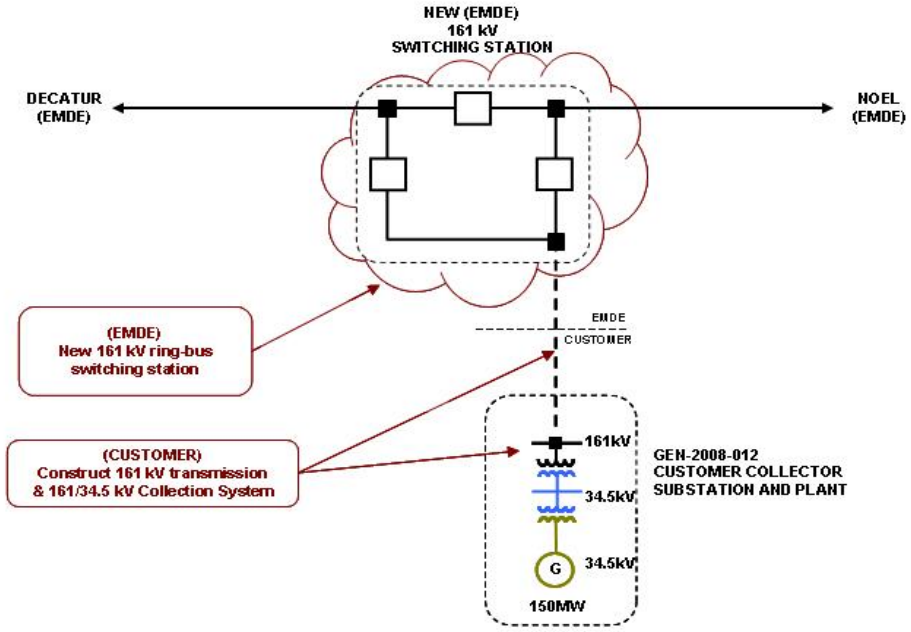

Figure 1: Proposed Method of Interconnection

(Final design to be determined)

Interconnection Estimated Costs

The minimum cost of adding a new 161 kV three-breaker ring-bus switching station serving GEN-2008-012 facilities is estimated at $2,500,000. These costs are listed in Tables 1 and 2. These estimates will be refined during the development of the System Impact Study based on the final designs. This cost does not include building the Customer's 161 kV transmission line extending from the point of interconnection to serve its 161/34.5 kV collection facilities. This cost also does not include the Customer's 161/34.5 kV collector substation or the possible need for reactive compensation, all of which should be determined by the Customer. The Customer is responsible for these 161 kV – 34.5 kV facilities up to the point of interconnection.

The costs of interconnecting the facility to the EMDE transmission system are listed in Table 1 & 2. **These costs do not include any cost that might be associated with short circuit study results or dynamic stability study results.** These costs will be determined when and if a System Impact Study is conducted.

Table 1: Direct Assignment Facilities

FACILITY	ESTIMATED COST (2008 DOLLARS)
CUSTOMER – (1) 161/34.5 kV Customer collector substation facilities.	*
CUSTOMER – (1) 161 kV transmission line from Customer collector substation to the proposed station to be located on the Noel – Decatur 161 kV transmission line.	*
CUSTOMER – Possible reactive compensation to be determined during impact study.	*
CUSTOMER – Right-of-Way for all Customer facilities.	*
TOTAL	*****

** Estimates of cost to be determined.*

Table 2: Required Interconnection Network Upgrade Facilities

FACILITY	ESTIMATED COST (2008 DOLLARS)
EMDE – (1) 161 kV three-breaker ring-bus switching station to be built for GI Request #GEN-2008-012 on the Noel – Decatur 161 kV transmission line. Work to include associated switches, control relaying, high speed communications, metering and related equipment and all related structures.	$2,500,000
TOTAL	*****

** Estimates of cost to be determined.*

Powerflow Analysis

A power flow analysis was conducted for the facility using modified versions of the 2009 winter peak model, the 2012 summer and winter peak models, and the 2017 summer peak model. The output of the Customer's facility was offset in each model by a reduction in output of existing online SPP generation. This method allows the request to be studied as an Energy Resource (ER) Interconnection request. The proposed in-service date of this request is October, 2010. The available seasonal models used were through the 2017 Summer Peak of which is the end of the current SPP planning horizon.

The analysis of the Customer's project indicates that, given the requested generation level of 150 MW and location, additional criteria violations will occur on the existing EMDE transmission system under steady state and contingency conditions in the peak seasons. Table 3 lists these overloaded facilities.

In Table 4, a value of Available Transfer Capability (ATC) associated with each overloaded facility is included. These values may be used by the Customer to determine lower generation capacity levels that may be installed. When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. When a facility is overloaded for more than one contingency, only the highest loading on the facility for each season is included in the table.

Voltage violations for load serving buses within the SPP footprint were also observed for some of the contingencies listed in Table 3. These voltage violations have not been listed in this report.

The need for reactive compensation will be determined during the Impact Study. The need for reactive compensation will be based on the Customer's choice of wind turbine make and manufacturer. Dynamic Stability studies performed as part of the System Impact Study will provide additional guidance as to whether the reactive compensation can be static or a portion must be dynamic (such as a SVC or STATCOM). It is possible that an SVC or STATCOM device will be required at the Customer facility because of FERC Order 661A Low Voltage Ride-Through Provisions (LVRT) which went into effect January 1, 2006. FERC Order 661A orders that wind farms stay on-line for 3-phase faults at the point of interconnection even if that requires the installation of a SVC or STATCOM device.

Powerflow Analysis Methodology

The Southwest Power Pool (SPP) criteria states that: “The transmission system of the SPP region shall be planned and constructed so that the contingencies as set forth in the Criteria will meet the applicable NERC Planning Standards for System Adequacy and Security – Transmission System Table I hereafter referred to as NERC Table I) and its applicable standards and measurements”.

Using the created models and the ACCC function of PSS\E, single contingencies in portions or all of the modeled control areas of Sunflower Electric Power Corporation (SUNC), Missouri Public Service (MIPU), Westar Energy (WERE), Kansas City Power & Light (KCPL), West Plains (WEPL), Midwest Energy (MIDW), Oklahoma Gas and Electric (OKGE), American Electric Power West (AEPW), Grand River Dam Authority (GRDA), Southwestern Public Service Company (SPS), Western Farmers Electric Cooperative (WFEC) and other control areas were applied and the resulting scenarios analyzed. This satisfies the ‘more probable’ contingency testing criteria mandated by NERC and the SPP criteria.

Powerflow Results

Table 3: Network Constraints

AREA	OVERLOADED ELEMENT
AEPW	FLINT CREEK - GENTRY REC 161KV CKT 1
AEPW	American Electric Power West

Table 4: Contingency Analysis

SEASON	OVERLOADED ELEMENT	RATING (MVA)	LOADING (%)	ATC (MW)	CONTINGENCY
09WP	None Identified			150	
12SP	None Identified			150	
12WP	None Identified			150	
17SP	FLINT CREEK - GENTRY REC 161KV CKT 1	353	103	0	ECNTRTN7 345.00 - FLINT CREEK 345KV CKT 1

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this Table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Conclusion

The minimum cost of interconnecting the Customer's interconnection request is estimated at $2,500,000 or Direct Assignment Facilities and Network Upgrades. At this time, the cost estimates for other Direct Assignment facilities including those in Tables 1 and 2 have not been defined by the Customer. In addition to the Customer's proposed interconnection facilities, the Customer may be responsible for installing reactive compensation in the Customer's substation for reactive support. These costs exclude upgrades of other transmission facilities that were listed in Table 3 of which are Network Constraints.

In Table 4, a value of Available Transfer Capability (ATC) associated with each overloaded facility is included. These values may be used by the Customer to determine lower generation capacity levels that may be installed. When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. When a facility is overloaded for more than one contingency, only the highest loading on the facility for each season is included in the table.

These interconnection costs do not include any cost that may be associated with short circuit or transient stability analysis. These studies will be performed if the Customer signs a System Impact Study Agreement. At the time of the System Impact Study, a better determination of the interconnection facilities may be available.

The required interconnection costs listed in Tables 1 and 2 and other upgrades associated with Network Constraints do not include all costs associated with the deliverability of the energy to final customers. These costs are determined by separate studies if the Customer submits a Transmission Service Request through Southwest Power Pool's OASIS.

Appendix A: Point of Interconnection Area Map

Figure 2: Point of Interconnection Area Map