BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

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| In the Matter of the Joint Application of GridLiance High Plains LLC (GridLiance HP), The City of Winfield, Kansas (Winfield) and the Kansas Power Pool (KPP) for Approval of GridLiance HP to Acquire Majority Interest in Electric Transmission Facilities Owned and Operated By Winfield Located in Cowley County, Kansas (Transmission Facilities) (Transaction); Issuance of a Certificate of Convenience and Authority to GridLiance HP Relating to the Transmission Facilities; and Issuance of a Certificate of Convenience and Authority to GridLiance HP Relating to the Upgrade of Those Transmission Facilities (NTC Project) and for Other Related Relief. | ) | Docket No. 19-GLPE-338-ACQ |

DIRECT TESTIMONY

OF

J. BRETT HOOTON

ON BEHALF OF JOINT APPLICANTS

February 20, 2019

## I. INTRODUCTION, PURPOSE OF TESTIMONY, AND REQUESTED RELIEF

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS?

A. My name is J. Brett Hooton. I am the President of GridLiance High Plains LLC (GridLiance HP), a wholly owned transmission-only utility (Transco) subsidiary of GridLiance Holdco, LP (GridLiance Holdco). My business address is 201 E. John Carpenter Freeway, Suite 900, Irving, Texas 75062.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

A. I am testifying on behalf of GridLiance HP, one of the Joint Applicants in this proceeding.

Q. PLEASE DESCRIBE YOUR JOB RESPONSIBILITIES, PROFESSIONAL AND EDUCATIONAL BACKGROUND.

A. As President of GridLiance HP, I oversee the company's regional business activities in the Southwest Power Pool, Inc. (SPP) footprint, including establishing new partnerships with municipal electric utilities, electric cooperatives, and joint action agencies, and developing transmission solutions to meet the needs of our partners.

I joined GridLiance HP after spending almost eight years at SPP, where I worked in a variety of coordination and planning positions, including working as a senior interregional coordinator, where I was responsible for the development, renegotiation, and execution of Joint Operating Agreements and other Seams Agreements between SPP and its neighbors. I was also responsible for coordinating the SPP-Midcontinent Independent System Operator, Inc. Coordinated System Plan and the SPP-Associated Electric Cooperative, Inc. Joint and Coordinated System Plan. I developed SPP's Interregional Order 1000 procedures and successfully ushered them through the stakeholder approval process. Additionally, I led the development and approval of SPP's governing document language for the SPP transmission owner selection process through its stakeholder working groups. Prior to that, I worked in the Economic Studies Transmission Planning group, where I performed various analyst activities, helped finalize the SPP Balanced Portfolio and Priority Projects Portfolio, and helped develop and implement the first round of SPP's Integrated Transmission Planning 20-Year Assessment and 10-Year Assessment.

In addition to my work at SPP, I was appointed by the Governor of Arkansas to chair Arkansas' Open Data and Transparency Task Force and by the Speaker of the Arkansas House of Representatives to serve on the Arkansas Data and Transparency Panel, where I was elected as Vice-Chair. I also served on the Saline County Election Commission for five and a half years, the last three and a half as Chairman.

I received my Bachelor of Science in Economics and Bachelor of Arts in Political Science from Arkansas Tech University.

Q. HAVE YOU SUBMITTED TESTIMONY TO THE FEDERAL ENERGY REGULATORY COMMISSION (FERC) OR ANY OTHER UTILITY REGULATORY COMMISSION?

A. I have submitted testimony to FERC and to the Oklahoma Corporation Commission. This is the first time I am presenting testimony to the Kansas Corporation Commission (KCC or Commission).

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My testimony covers the following:

(1) I introduce the witnesses that have filed testimony in support of the Joint Application. (**Section II**)

(2) I will introduce GridLiance HP, including its history, organization, business model, and electric assets ownership and operating philosophy. (**Section III**)

(3) I will describe GridLiance HP's pending acquisition of an undivided 65% interest in the

existing electric transmission facilities owned and operated by the City of Winfield, Kansas (Winfield) located in Cowley County, Kansas (Transmission Facilities) and related assets (collectively, the Assets) as fully described in the Asset Purchase Agreement (APA) and exhibits and schedules thereto attached to the Joint Application as *Appendix A* (Transaction). (Section IV)

(4) I will discuss GridLiance HP's post-acquisition plan for owning and operating the Assets. (Section V)

(5) I will provide an overview of the operational, managerial, and financial qualifications of GridLiance HP to acquire, own, and operate the Assets and the NTC Project and the success that it and its sister Transcos have had regarding other similar transactions. (Section VI)

(6) I will also describe GridLiance HP's involvement in the upgrade to the Transmission Facilities pursuant to the SPP's Notification to Construct transmission upgrade project dated February 27, 2018, No. 200479 issued to Kansas Power Pool (KPP) (NTC Project). (Section VII)

(7) I will discuss how the proposed Transaction meets the KCC's criteria or standards relating to the acquisition of utility assets and how the public interest will be promoted by the Commission's approval of the Transaction. (Section VIII)

(8) Finally, I will explain how the granting GridLiance HP the certificates of convenience and authority for transmission rights-only regarding the Transmission Facilities and to GridLiance HP and Winfield for the NTC Project will promote the public interest. (Section IX)

Q. WHAT REGULATORY APPROVALS ARE REQUIRED WITH RESPECT TO THE TRANSACTION?

A. Closing of the Transaction is subject to receiving all necessary approvals from the KCC, and FERC. The Transmission Facilities were previously deemed to meet the definition of "Transmission" under Attachment AI of the SPP Tariff in FERC Docket No. ER12-140-000, and KPP currently recovers the

Annual Transmission Revenue Requirement (ATRR) for the Transmission Facilities under the SPP Tariff in SPP's Zone 14, commonly referred to as the Westar Energy, Inc. (Westar) transmission pricing zone. Therefore, upon closing the Transaction, GridLiance HP will transfer functional control of its undivided 65% interest in the Transmission Facilities to SPP, in accordance with SPP's standard functional control agreement, and SPP will continue to provide transmission service over the Assets under the SPP Tariff. Because the Assets will be owned by a Transco with no retail customers, FERC will have exclusive jurisdiction over the rates, terms and conditions of service governing the Assets.

Q. WHAT ARE THE JOINT APPLICANTS SEEKING FROM THE KCC?

A. For purposes of effecting the Transaction and GridLiance HP's ownership interest in the Assets and the NTC Project, Joint Applicants seek in their Joint Application any necessary, appropriate, and applicable approvals related to the ownership and operation of the Assets, including an order from the Commission (1) finding that the public convenience and necessity for purposes of K.S.A. 66-131 and 66-136 will be promoted by granting to GridLiance HP a transmission rights-only certificate of public convenience authorizing GridLiance HP to own and operate the Assets as described in paragraph 6 of the Joint Application; (2) finding that the public convenience and necessity for purposes of K.S.A. 66-131 and 66-136 will be promoted by granting to GridLiance HP a transmission rights-only certificate of convenience authorizing GridLiance HP to own and operate the NTC Project as described in paragraph 10 of the Joint Application; (3) approving the Transaction, the APA and the various agreements attached and incorporated into the APA, pursuant to K.S.A. 66-136, to the extent the APA and those agreements effect the public convenience and necessity relating to the Assets and the NTC Project; and (4) granting such other authority necessary under the Kansas Public Utility Act to allow for the completion of the Transaction and the NTC Project pursuant to the terms of the APA and the various agreements attached and incorporated into the APA.

## II. WITNESSES TESTIFYING IN SUPPORT OF THE JOINT APPLICATION

Q. PLEASE IDENTIFY THE WITNESSES FILING TESTIMONY IN THIS MATTER.

A. The witnesses filing testimony in this matter and the subject matter of their testimony are as follows:

| WITNESS | PRIMARY TESTIMONY TOPIC |
|---|---|
| J. Brett Hooton<br>President<br>GridLiance HP | • Introduction to GridLiance HP, including its history, organization, business model, and asset ownership and operating philosophy.<br>• Description of GridLiance HP's acquisition of Winfield's Transmission Facilities.<br>• Discussion of the technical and managerial qualifications of GridLiance HP's to acquire, own, and manage the Winfield Transmission Facilities and the construction, ownership, and management of the transmission line constructed under the NTC Project.<br>• Explanation as to how the proposed Transaction meets the Commission's Merger and Acquisition Standards and how the public interest will be promoted by the Commission's approval of the Transaction and the issuance of the certificates of convenience and authority for Transmission Rights Only. |
| Donald E. Zybak Jr.<br>Vice President and Corporate Controller<br>GridLiance HP | • Explanation of GridLiance HP's financial abilities to complete the Transaction and to own and manage the Transmission Facilities and construct, own and manage the NTC Project.<br>• Describe the financial considerations particular to the Transaction and the NTC Project.<br>• Discuss accounting issues related to Transaction. |
| James Useldinger<br>Vice President, Operations & Maintenance<br>GridLiance HP | • Provides overview of GridLiance HP's operational capabilities. |
| Gus Collins<br>Director of Utilities<br>City of Winfield | • Identification of the benefits that Winfield, its citizens and its retail electric customers will receive as a result of the Transaction and the construction of the NTC Project. |

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| Larry W. Holloway<br>Assistant General Manager<br>KPP | • Identification of the need for the NTC Project, the benefits of the NTC Project to electric customers in Cowley County, Kansas, and the benefits that KPP and Winfield will receive as a result of GridLiance HP's involvement in the NTC Project. |

## III. OVERVIEW OF GRIDLIANCE HP

Q. PLEASE PROVIDE AN OVERVIEW OF GRIDLIANCE HP.

A. GridLiance HP is a Transco formed to partner with municipal electric utilities, electric cooperatives, and joint action agencies in the SPP region to solve transmission issues, optimize its partners' systems, and help manage costs on these systems to the benefit of its partners and the broader transmission grid.

Q. PLEASE DESCRIBE GRIDLIANCE HP'S CORPORATE STRUCTURE AND ITS CURRENT BUSINESS OPERATIONS.

A. GridLiance HP is a limited liability company organized and existing under the laws of the State of Delaware and a wholly-owned direct subsidiary of GridLiance Eastern Holdings LLC (GridLiance Eastern Holdings). GridLiance Eastern Holdings is, in turn, a wholly-owned subsidiary of GridLiance Heartland Holdings LLC (GridLiance Heartland Holdings), which is, in turn, wholly-owned by GridLiance Holdco, LP (GridLiance Holdco), a Delaware limited partnership. GridLiance HP's principal office is located at 201 East John Carpenter Freeway, Suite 900, Irving, Texas 75062, GridLiance HP is authorized to do business in the State of Kansas as a foreign-chartered limited liability company as evidenced by *Appendix C* attached to the Joint Application.

GridLiance HP is not affiliated with any market participant operating in SPP. GridLiance HP has affiliate Transcos that have been formed to operate in other Independent System Operators (ISOs) and Regional Transmission Organizations (RTOs). GridLiance HP and its sister Transcos are wholly-owned indirect subsidiaries of GridLiance Holdco. GridLiance Heartland Holdings and GridLiance Eastern Holdings also own GridLiance East LLC (GridLiance East) and GridLiance Heartland LLC (GridLiance Heartland), Transcos formed to operate in the PJM Interconnection (PJM) and Midcontinent Independent System Operator, Inc. (MISO) regions, respectively. GridLiance Holdco also wholly owns GridLiance Texas Holdings LLC, which, in turn, owns GridLiance Texas LLC, a Transco that will own and develop transmission facilities in the Electric Reliability Council of Texas (ERCOT) region. In addition, GridLiance Holdco owns GridLiance Western Holdings LLC, which owns GridLiance West LLC (GridLiance West), a Transco that owns and develops transmission in the California Independent System Operator Corporation (CAISO) region.

GridLiance Holdco's shares are primarily owned by Blackstone Power and Natural Resources, LP (Blackstone Power), an affiliate of the Blackstone Group L.P. (Blackstone). Blackstone is one of the world's leading investment firms with an extensive track record of successful private equity investments. Blackstone was founded in 1985 and has been publicly listed since 2007. As of September 2018, Blackstone manages approximately $457 billion in assets. Blackstone is an active investor in virtually every sector of the energy industry, having committed approximately $15 billion of equity across a broad range of geographies and throughout the energy value chain: upstream, midstream, downstream, and power. As a portfolio company of Blackstone, GridLiance Holdco has ample access to capital to acquire, plan, or compete for and complete transmission investments in the RTO regions through its subsidiary Transcos, including GridLiance HP.

On April 1, 2018, GridLiance HP became a Transmission Owner Member of SPP, following GridLiance HP's acquisition from the City of Nixa, Missouri (Nixa) of approximately 10 miles of transmission lines and related assets (Southwest Missouri Assets) and subsequent transfer of the

Missouri Assets to SPP's functional control. SPP currently provides transmission service over the Missouri Assets to customers in SPP pricing Zone 10.

Prior to that transaction, on April 1, 2016, GridLiance HP acquired from Tri-County Electric Cooperative, Inc. (Tri-County) approximately 410 miles of transmission lines and other facilities operated at 115 kV and 69 kV in the SPP area (Oklahoma Panhandle Assets). SPP currently provides transmission service over a portion of the Oklahoma Panhandle Assets to customers in SPP pricing Zone 11.

GridLiance HP is currently seeking approval from FERC to acquire approximately 55 miles of 138 kV transmission lines and related facilities in East Central Oklahoma (East Central Oklahoma Assets) owned by Peoples Electric Cooperative (PEC). Upon receiving all required regulatory approvals, GridLiance HP plans to transfer its East Central Oklahoma Assets to SPP's functional control.

Q. WHO OPERATES GRIDLIANCE HP?

A. Like its sister Transcos, GridLiance HP is managed by a growing team of experienced utility executives and staff. Attached to my testimony as Exhibit JBH-1 are the profiles of our management team. The executives and staff are employed by an affiliate, GridLiance Management, LLC. The costs of employees' time managing the affairs of GridLiance HP and its sister Transcos are allocated in accordance with a cost allocation methodology accepted by the FERC on October 19, 2017 in FERC Docket No. ER17-953.

## IV. BENEFITS OF THE GRIDLIANCE BUSINESS MODEL

Q. DOES GRIDLIANCE HP'S MAJORITY OWNERSHIP AND OPERATION OF THE TRANSMISSION FACILITIES PROVIDE BENEFITS TO THE ELECTRIC GRID?

A. Yes. GridLiance HP was formed to partner with electric cooperatives, municipal utilities, joint action agencies, renewable energy developers, and irrigation districts in the SPP region. These partnerships have resulted in numerous benefits to the SPP-controlled transmission grid, which will continue to increase as GridLiance HP acquires new assets, plans and develops its existing assets, and participates in SPP stakeholder processes as an SPP transmission owner.

Q. DO THE OTHER GRIDLIANCE COMPANIES PROVIDE SIMILAR BENEFITS TO THE ELECTRIC GRID?

A. Yes. GridLiance HP is one of five Transcos that are owned and operated by GridLiance Holdco. The other Transcos are GridLiance West LLC (GridLiance West), which does business in the California Independent System Operator (CAISO), GridLiance Heaertland LLC (GridLiance Heartland), which does business in the Midcontinent Independent System Operator (MISO); GridLiance East LLC (GridLiance East), which does business in the PJM Interconnection LLC (PJM); and GridLiance Texas LLC (GridLiance Texas), which does business in the Electric Reliability Council of Texas (ERCOT) (collectively, the GridLiance Transcos). All of the GridLiance Transcos were formed under the same business model.

Q. PLEASE IDENTIFY THE SPECIFIC BENEFITS THE GRIDLIANCE TRANSCOS PROVIDE TO THE ELECTRIC GRID.

A. In general, the GridLiance HP business model results in (1) increased competition in bidding for the construction of new transmission facilities; (2) increased coordination of transmission issues with smaller utilities; and (3) improved reliability and operation of the transmission grid.

Q. HAS FERC ACKNOWLEDGED THE BENEFITS OF THE TRANSCO BUSINESS MODEL?

A. Yes. FERC has previously stated in a variety of orders that the Transco business model can provide benefits that are consistent with the public interest, such as increased competition in bidding on the construction of new transmission assets, improved responsiveness to transmission market needs, improved asset management, and greater reliability.

Additionally, FERC has a general policy of favoring the development of independent transmission companies like GridLiance HP that are not affiliated with vertically integrated utilities. The thought is that independent Transcos will be solely focused on transmission development, operation, and services. In its Order No. 679, FERC stated as follows:

> By eliminating competition for capital between generation and transmission functions and thereby maintaining a singular focus on transmission investment, the Transco model responds more rapidly and precisely to market signals indicating when and where transmission investment is needed. Moreover, the Transcos' for-profit nature, combined with a transmission-only business model, enhances asset management and access to capital markets and provides greater incentives to develop innovative services. By virtue of their stand-alone nature, Transcos also provide non-discriminatory access to all grid users.[1]

FERC has attributed these benefits to Transcos having a "more focused business model than that of vertically-integrated utilities." FERC has recognized that this business structure promotes investment and non-discriminatory access to the grid.

Q. HOW DOES THE GRIDLIANCE BUSINESS MODEL RESULT IN INCREASED COMPETITION?

A. The GridLiance business model has increased competition in two ways. First, through GridLiance HP's status as an SPP-qualified competitive developer in SPP, it has actively pursued stakeholder

[1] *Promoting Transmission Investment through Pricing Reform*, Order No. 679, FERC Stats. & Regs. ¶ 31,222, at P 224 (2006).

processes and submitted a bid in SPP's sole competitive process. As an independent Transco with no incumbent affiliates, each of GridLiance HP and its sister Transcos remain vigilant about the competitive solicitation rules that benefit incumbent transmission owners and work to ensure that those rules do not disadvantage non-incumbent and smaller utilities. Additionally, having no incumbent transmission owner affiliates, GridLiance HP and its sister Transcos are more flexible in how we partner with others in our bids and how the bids themselves are structured.

Second, GridLiance HP has worked with small utilities - principally public power and rural electric cooperatives - in RTO/ISO transmission planning processes to submit network upgrades that address the reliability issues of our utility partners. For example, in SPP to date, we have submitted over 400 Detailed Planning Proposals recommending upgrades to be considered in SPP's transmission planning process. Our planning work is now undertaken pursuant to our FERC-approved Local Planning Process (LPP)[2] through which we recently issued our first report, available on GridLiance HP's OASIS site at: https://www.oasis.oati.com/woa/docs/SMCN/SMCNdocs/2018_GLHP_LPP_Plan_Draft_v2_February_8,_2019.pdf.

Q. WHY DOES GRIDLIANCE HP VALUE PARTNERSHIPS WITH SMALLER UTILITIES?

A. With the advent of regional transmission planning, smaller utilities, typically public power and rural electric cooperatives, have found it difficult to maintain an equal voice in stakeholder processes, including transmission planning. GridLiance HP and its sister Transcos were founded with a key objective of amplifying the voices of our utility partners, rather than displacing them. We accomplish this objective through coordination with our utility partners, our expert consultants, and business

[2] GridLiance High Plains LLC, OATT, Attachment K, Local Planning Process. South Central MCN LLC, 164 FERC ¶ 61,114 (2018) (accepting currently effective LPP subject to compliance filing).

leaders, all of whom have decades of experience in the electric utility industry.

Q. WHAT DO GRIDLIANCE HP AND ITS SISTER TRANSCOS AIM TO ACCOMPLISH THROUGH ITS PARTNERSHIPS WITH SMALLER UTILITIES?

A. GridLiance HP and its sister Transcos work with our partners through comprehensive internal processes to understand their transmission needs and implement mechanisms to address those needs. These efforts frequently culminate in (1) planning reliability upgrades on our partners' systems and (2) advocating for our partners in stakeholder proceedings and/or coordinating joint participation on specific stakeholder proposals.

Q. HOW DOES GRIDLIANCE HP ADVOCATE FOR ITS PARTNERS?

A. GridLiance HP also ensures that the local reliability needs of our utility partners are studied in the SPP transmission planning process. Our Co-Development Agreements and Joint Development Agreements provide for regular meetings with our utility partners to discuss their transmission needs and possible projects.

Q. HOW DOES THE GRIDLIANCE HP BUSINESS MODEL ENHANCE RELIABILITY AND IMPROVE OPERATIONS?

A. The GridLiance HP business model enhances reliability and improves operations in at least two ways: (1) by assuming responsibility for compliance with NERC standards; and (2) by optimizing a combination of local "boots on the ground" and nationally-recognized contractors for operations and maintenance (O&M). Mr. James (Jim) Useldinger, Vice President, Operations & Maintenance for GridLiance HP provides additional information about GridLiance HP’s operational capabilities in his Direct Testimony.

Q. HOW WILL GRIDLIANCE HP ENSURE THAT THE BENEFITS OF TRANSCO OWNERSHIP ACCRUE TO THE ASSETS BEING ACQUIRED FROM WINFIELD?

A. To ensure that GridLiance HP's ownership and operation of the Assets being acquired from Winfield meets GridLiance HP's business objectives, upon closing the Proposed Transaction and transferring the Assets to SPP, GridLiance HP plans to incorporate the Assets into the SPP Integrated Transmission Planning (ITP) process as well as GridLiance HP's Local Planning Process (LPP). GridLiance HP will work closely with Winfield to ensure that Winfield's reliability needs are met through these planning and stakeholder processes. Additionally, GridLiance HP will continue to integrate the facilities into the SPP regional network – as they are today – which will ensure that they continue to be incorporated into SPP’s regional planning processes and utilized to efficiently and reliably provide transmission service.

V. <u>THE PROPOSED TRANSACTION</u>

Q. PLEASE DESCRIBE THE ASSETS THAT ARE THE SUBJECT MATTER OF THE TRANSACTION.

A. The Assets are located in Cowley County, Kansas and consist of 29 miles of 69 kV lines and related facilities, including the associated terminal equipment, and the real estate interests held by Winfield for the Assets. The Assets are identified in the schedules attached to the APA. The Assets are located in the SPP region. A map showing the location of the Transmission Facilities and providing a legal description of their route is attached to the Joint Application as *Appendix C*. The legal description is also included in paragraph 6 of the Joint Application.

Q. PLEASE DESCRIBE THE TRANSACTION.

A. Under the terms and conditions set forth in the APA, GridLiance HP will acquire an undivided 65% interest in the Assets and Winfield will retain a 35% undivided minority interest to the Assets. Winfield will also retain 100% of its Kansas distribution assets and will continue to provide retail distribution service and retail sales to its customers within its Kansas certificated service territory and to its one wholesale customer. There will be a seamless transition of ownership and operation of the Assets through the proposed Transaction. GridLiance HP and Winfield will enter into a Joint Ownership Agreement (JOA), which is attached to the APA as Exhibit A, for ownership, maintenance and operation of the Assets, and pursuant to which GridLiance HP shall be the exclusive agent for planning and operating the Assets. The Transmission Facilities are located mostly within the retail service territory certificated to Winfield. The purchase price of the Assets will be equal to the net book value of the Assets at the time of closing of the Transaction. Sixty-five percent (65%) of the current net book value of the Assets is approximately $1.1 million.

Additionally, as part of the Transaction, GridLiance HP and KPP have executed an Assignment Agreement, with acknowledgment from Winfield, pursuant to which KPP will, upon SPP approval and closing the transaction, assign to GridLiance HP the upgrade of a portion of the Assets, specifically, the 69 kV transmission line and associated equipment from Winfield's Tie Substation to the Westar Rainbow Station (NTC Assignment Agreement), as further described in the NTC Project and as shown on the map attached to the Joint Application as *Appendix D,* with the intention of the Parties that GridLiance HP will own an undivided 65% in the NTC Project and Winfield will own the remaining 35% interest. The legal description of the route of the transmission line being upgraded pursuant to the NTC Project, in which GridLiance HP is requesting a certificate of convenience and authority for transmission rights only is set forth in paragraph 10 of the Joint Application. GridLiance HP's share of the cost to construct the NTC Project is currently estimated to be approximately $2.3 million. The NTC Assignment Agreement between KPP and GridLiance HP is attached to the Joint

Application as *Appendix E*.

Also, as part of the Transaction, GridLiance HP, as Operator, will enter into an Operations and Maintenance Agreement (O&M Agreement) with Winfield for operation and maintenance services for the Assets and NTC Project, with pricing and other terms consistent with GridLiance HP's standard form of O&M Agreement (attached to the APA as Exhibit F).

Finally, GridLiance HP and Winfield have agreed to enter into a Franchise Agreement, the form of which is attached to the APA as Exhibit G. GridLiance HP has also agreed that it or an affiliate will make specific contributions to Winfield's Economic Development Fund or other funds as set forth in the APA. GridLiance HP will not seek recovery of the contributions in rates.

Q. DO THE ASSETS QUALIFY FOR INCLUSION IN THE SPP TARIFF?

A. Yes. As previously mentioned, the Transmission Facilities were previously deemed to meet the definition of "Transmission" under Attachment AI of the SPP Tariff in FERC Docket No. ER12-140-000, and KPP currently recovers the ATRR for the Transmission Facilities under the SPP Tariff in the Westar transmission pricing zone. Therefore, upon closing the Transaction, GridLiance HP will transfer functional control of its undivided 65% interest in the Transmission Facilities to SPP and SPP will continue to provide transmission service over the Assets under the SPP Tariff. Because the GridLiance HP Assets will be owned by a Transco with no retail customers, FERC will have exclusive jurisdiction over the rates, items and conditions of service governing the Assets.

## VI. <u>GRIDLIANCE HP'S POST-ACQUISITION PLAN FOR OPERATING THE ASSETS</u>

Q. PLEASE DESCRIBE GRIDLIANCE HP'S POST-ACQUISITION PLAN FOR OWNING AND MANAGING THE ASSETS.

A. Following receipt of regulatory approvals of the Transaction from the KCC and FERC and approval from SPP of the NTC Project Assignment and closing, GridLiance HP will transfer functional control of the Transmission Facilities to SPP. Winfield will continue to own and operate its local distribution system. GridLiance HP will contract with Winfield for operations and maintenance services for the Assets. The GridLiance HP operations team will closely monitor and work with Winfield staff in the ongoing day-to-day operation of the Assets and will also provide the oversight and responsibility for the maintenance of the Assets in coordination with Winfield's field services personnel.

## VII. TECHNICAL, MANAGERIAL, AND FINANCIAL QUALIFICATIONS OF GRIDLIANCE HP TO OWN AND OPERATE THE TRANSMISSION FACILITIES AND TO CONSTRUCT AND OWN THE NTC PROJECT TRANSMISSION LINE

Q. PLEASE BRIEFLY DESCRIBE GRIDLIANCE HP'S QUALIFICATIONS TO EFFICIENTLY MANAGE THE TRANSMISSION FACILITIES AND TO SUPERVISE THE CONSTRUCTION PROCESS RELATING TO THE NTC PROJECT.

A. GridLiance HP routinely manages and develops projects with a view toward long-term ownership, performance, profitability, and operations.

Q. DOES GRIDLIANCE HP HAVE EXPERIENCE IN OWNING AND MANAGING TRANSMISSION FACILITIES AND CONSTRUCTING, DEVELOPING AND MAINTAINING NEW TRANSMISSION PROJECTS LIKE THE NTC PROJECT?

A. Yes. As I mentioned earlier in my testimony, the GridLiance Holdco companies have been proactive in initiating discussions with public power and cooperative entities in several RTOs to assess what transmission solutions are needed and to enter into tailored arrangements that best align with the goals of the entities. In addition to owning transmission assets in SPP, GridLiance HP has long-term Co-Development Agreements with Tri-County, the Missouri Joint Municipal Electric Utility Commission (MJMEUC) and KPP and a Joint Development Agreement with Oklahoma Municipal Power Authority

(OMPA). Under CDAs and JDAs GridLiance HP will plan, jointly develop, and own transmission with these entities. These arrangements address the entities' challenges pursuing transmission projects on their own and help them address rising transmission costs. GridLiance HP's sister Transco, GridLiance West LLC, also owns and operates approximately 165 miles of 230 kV high-voltage transmission lines in the CAISO region and GridLiance Heartland LLC has a binding agreement to purchase high-voltage facilities that will be under MISO's functional control.

Second, GridLiance Holdco companies have been at the forefront of participating in Order No. 1000 competitive solicitation processes. GridLiance HP in SPP, GridLiance Heartland in the MISO region, and Gridliance East in the PJM region have all been deemed qualified to compete for eligible projects. The standards to qualify to participate are high. Companies must demonstrate the financial and technical capability to construct a project before they can even submit a proposal. GridLiance HP and GridLiance Heartland both submitted bids with public power partners in the first competitive bidding cycles in SPP and MISO, respectively.

Q. WHO ARE THE INDIVIDUALS AT GRIDLIANCE HP WHO WILL MANAGE THE EXISTING TRANSMISSION FACILITIES AND MANAGE AND DIRECT THE CONSTRUCTION AND OPERATION OF THE NTC PROJECT AND WHAT ARE THEIR SPECIFIC DUTIES AND QUALIFICATIONS?

A. As mentioned earlier in my testimony, profiles of GridLiance HP's Senior Management and Project Management teams, who will be involved in the management of the existing transmission facilities and who will manage and direct the construction and operation of the NTC Project are attached *as Exhibit JBH-1*. Those profiles set forth the duties and qualifications of each person on our management team. The operational capabilities of GridLiance HP are discussed in more detail in the Direct

Testimony of Mr. Useldinger.

Q. PLEASE PROVIDE AN OVERVIEW OF GRIDLIANCE HP'S FINANCIAL ABILITIES.

A. GridLiance HP and Blackstone have extensive experience and success in raising capital for large scale energy projects. The financial abilities of GridLiance HP and Blackstone are discussed in more detail in the Direct Testimony of Mr. Zybak.

## VIII. <u>NTC PROJECT</u>

Q. CAN YOU DESCRIBE THE NTC PROJECT IDENTIFIED IN THE JOINT APPLICATION?

A. Yes. On February 27, 2018, SPP issued the NTC Project to KPP pursuant to Section 3.3 of the SPP Membership Agreement and Attachments O and Y of the SPP Tariff. The NTC Project has been assigned the Project ID number 51249 and is named "Line-City of Winfield-Oak 69 kV Reconductor." The NTC Project involves the rebuild and reconductor of four (4) miles of one of Winfield's 69 kV transmission lines and associated equipment from Winfield's Tie Substation to Westar’s Rainbow Substation. The need date for the NTC Project is June 1, 2021. KPP is the Network Upgrade Owner. A map showing the route of the 69-kV transmission line and associated equipment from Winfield's Tie Substation to Westar's Rainbow Station is attached to the Joint Application as *Appendix E*.

The NTC Project includes an additional network upgrade which is not identified in the February 28 NTC to KPP. That additional upgrade includes reconductoring approximately five (5) miles of 69 kV transmission line from Westar’s Oak Substation to Westar’s Rainbow Substation. As shown in Exhibit JBH-2, on September 21, 2017, SPP initially directed both upgrades to Westar. However, on February 27, 2018 SPP issued a notice withdrawing the four-mile portion of the NTC Project because it determined that Winfield, not Westar, owned the facilities. SPP subsequently directed the four-mile portion of the NTC to KPP.

Q. WHY ARE THE UPGRADES TO WINFIELD'S TRANSMISSION FACILITIES PROPOSED UNDER THE NTC PROJECT NECESSARY?

A. The NTC Project was described in an Aggregate Facilities Study (AFS) published by SPP in May 2017. I was not involved in the AFS and cannot speak directly to the criteria that were used to perform the study or its results; however, my understanding is that SPP's authority to perform and publish an AFS is set forth the SPP Tariff. Attachment Z1 to the SPP Tariff indicates that SPP will utilize an Aggregate Transmission Service Study process to evaluate long-term transmission service requests for point-to-point and designated network resource requests received during a specified period of time.[3] SPP will then develop a more efficient expansion of the transmission system that provides the necessary Available Transfer Capability[4] to accommodate all such requests at the minimum total cost. Again, I was not involved in this process; however, my understanding is that SPP identified the necessity of the NTC Project in the May 2017 AFS based on the inputs it received pursuant to procedures outlined in the SPP Tariff. The AFS is attached hereto as ***Exhibit JBH-3***.

Q. HOW WILL GRIDLIANCE HP PARTICIPATE IN THE NTC PROJECT?

A. As a condition to the Transaction between Winfield and GridLiance HP, KPP and GridLiance HP have executed an Assignment Agreement, with acknowledgment from Winfield, wherein KPP has agreed to assign to GridLiance HP the upgrade of a portion of the facilities that are the subject matter of the NTC Project, with the intention of the Parties that GridLiance HP will own an undivided 65% interest in the

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[3] *See* Southwest Power Pool – Open Access Transmission Tariff, Sixth Revised Volume No. 1 – Attachment Z1 Aggregate Transmission Service Study… Attachment Z1 Section 1.

[4] SPP's online glossary defines "Available Transfer Capability" as "a measure of the transfer capability remaining in the physical transmission network for further commercial activity over and above already committed uses." (available at https://www.spp.org/glossary/).

NTC Project and Winfield will own the remaining 35%.

Q. DOES WINFIELD BENEFIT FROM KPP ASSIGNING A PORTION OF THE TRANSMISSION LINE UPGRADES BEING BUILT UNDER THE NTC PROJECT TO GRIDLIANCE HP?

A. Yes. KPP's assignment of a majority interest in the transmission line being built under the NTC Project to GridLiance HP will allow KPP and its members, and Winfield and its citizens, to proceed with the needed upgrades to the Transmission Facilities used to serve electric customers in Cowley County, Kansas, pursuant to the NTC Project, and to obtain the benefits associated with the NTC Project without having to take on 100% of the risk, including the financial obligation relating to the NTC Project.

## IX. DISCUSSION OF THE KANSAS MERGER OR ACQUISITION STANDARDS

Q. ARE YOU FAMILIAR WITH THE KANSAS MERGER OR ACQUISITION STANDARDS THAT THE COMMISSION USES IN ITS EVALUATION OF PROPOSED MERGER AND ACQUISITION TRANSACTIONS?

A. Yes. It is my understanding that, in its review of merger or acquisition applications, the Commission has traditionally applied the following eight standards or criteria and their respective subparts:

(a) The effect of the transaction on consumers, including:

(i) The effect of the proposed transaction on the financial condition of the newly created entity as compared to the financial condition of the stand-alone entities if the transaction did not occur;

(ii) Reasonableness of the purchase price, including whether the purchase price was reasonable in light of the savings that can be demonstrated from the merger and whether the purchase price is within a reasonable range;

(iii) Whether ratepayer benefits resulting from the transaction can be quantified;

(iv) Whether there are operational synergies that justify payment of a premium in excess of book value;

(v) The effect of the proposed transaction on the existing competition.

(b) The effect of the transaction on the environment.

(c) Whether the proposed transaction will be beneficial on an overall basis to state and local economies and to communities in the area served by the resulting public utility operations in the state. Whether the proposed transaction will likely create labor dislocations that may be particularly harmful to local communities, or the state generally, and whether measures can be taken to mitigate the harm.

(d) Whether the proposed transaction will preserve the jurisdiction of the KCC and the capacity of the KCC to effectively regulate and audit public utility regulations in the state.

(e) The effect of the transaction on affected public utility shareholders.

(f) Whether the transaction maximizes the use of Kansas energy resources.

(g) Whether the transaction will reduce the possibility of economic waste.

(h) What impact, if any, the transaction has on the public safety.

Q. PLEASE DESCRIBE SPECIFICALLY THE EFFECT OF THE PROPOSED TRANSACTION ON THE FINANCIAL CONDITION OF THE NEWLY CREATED ENTITY AS COMPARED TO THE FINANCIAL CONDITION OF THE STAND-ALONE ENTITIES IF THE TRANSACTION DID NOT OCCUR, AND HOW THIS AFFECTS CONSUMERS.

A. The Transaction does not result in the creation of a new entity. However, the Transaction will create joint ownership in the Assets and the NTC Project. This will allow Winfield to jointly own the utility assets with a partner who: (1) has a management team with significant knowledge, experience and expertise in owning, constructing, financing, and operating other transmission facilities located within the SPP footprint; (2) has access to significant capital to finance such activities; and (3) will have a substantial stake in the success of such activities given its future joint ownership of the facilities. The Transaction also provides Winfield with a large capital infusion as well as an assurance that the much-needed upgrades to its Transmission Facilities will be completed while relieving Winfield of the entire financial obligation for those upgrades.

Q. PLEASE DESCRIBE THE REASONABLENESS OF THE PURCHASE PRICE.

A. This standard has limited applicability because there is no merger and no acquisition premium that will be recovered in rates and therefore no need to show merger savings to justify an acquisition premium. The purchase price was obtained through an arm's length negotiation by independent and sophisticated parties who determined that entering into the APA was in their independent best interests. In addition, the purchase price for the interest in the existing facilities being acquired by GridLiance HP from Winfield is equal to the net book value of the transmission assets. The contributions to Winfield’s Economic Development Fund or other funds as set forth in the APA will not be included in rates. . Therefore, the purchase price is reasonable and is within a reasonable range.

Q. PLEASE DESCRIBE THE RATEPAYER BENEFITS RESULTING FROM THE PROPOSED TRANSACTION THAT CAN BE QUANTIFIED.

A. This standard has limited applicability because GridLiance HP will have no retail ratepayers or customers. Instead, GridLiance HP only has wholesale transmission customers and FERC will have exclusive jurisdiction over the rates GridLiance HP may charge for use of the Transmission Facilities. However, Winfield's citizens and retail customers will benefit from the Transaction because the Transaction allows Winfield and its citizens and KPP and its members to proceed with the needed upgrades to the Transmission Facilities used to serve electric customers, and to obtain the benefits associated with the NTC Project, without having to take on 100% of the financial obligations relating to the NTC Project. Mr. Collins and Mr. Holloway, who are testifying in support of the Joint Application for Winfield and KPP, identify the benefits of the Transaction from their respective perspectives.

Q. PLEASE DESCRIBE WHETHER THE PROPOSED TRANSACTION INVOLVED A PAYMENT OF A PREMIUM IN EXCESS OF BOOK VALUE AND WHETHER THERE ARE OPERATIONAL SYNERGIES THAT JUSTIFY PAYMENT OF SUCH A PREMIUM.

A. This standard has limited applicability. There is no payment in excess of book value for the existing transmission assets that will be recovered in rates. The existing transmission assets are being purchased at net book value. Nevertheless, the Transaction and Transmission Facilities fit easily within GridLiance HP's existing management and financial capabilities and the NTC Project will be capitalized in large part by resources provided by GridLiance HP.

Q. PLEASE DESCRIBE THE EFFECT OF THE PROPOSED TRANSACTION ON THE EXISTING COMPETITION, AND HOW THIS AFFECTS CONSUMERS.

A. The proposed Transaction will have no negative effect on competition because the Transmission Facilities will be operated pursuant to a limited transmission rights-only certificate in the areas identified in this Joint Application and authorized by the Commission. GridLiance HP is not seeking any authority to provide retail service. Further, use of the Transmission Facilities will be under SPP's functional control further limiting any impact on the existing competition.

Q. PLEASE DESCRIBE THE EFFECT OF THE PROPOSED TRANSACTION ON THE ENVIRONMENT.

A. GridLiance HP will comply with all applicable environmental standards and regulations relating to the Transmission Facilities and NTC Project.

Q. PLEASE DESCRIBE WHETHER THE PROPOSED TRANSACTION WILL BE BENEFICIAL ON AN OVERALL BASIS TO STATE AND LOCAL ECONOMIES AND TO COMMUNITIES IN THE AREA SERVED BY THE RESULTING PUBLIC UTILITY OPERATIONS IN THE STATE.

A. The Transaction will be beneficial on an overall basis to state and local economies and to communities in the area served because it allows Winfield and its citizens and KPP and its members to proceed with the needed upgrades to the Transmission Facilities under the NTC Project, and to obtain the benefits associated with the NTC Project, without having to take on 100% of the financial obligations relating to the NTC Project. Moreover, the construction and operation of the Transmission Facilities, including those new transmission facility upgrades constructed under the NTC Project, will result in sales and use tax revenues and ad valorem property taxes for local and state governments.

Q. WILL THE PROPOSED TRANSACTION CREATE ANY LABOR DISLOCATIONS?

A. There will be no labor dislocations as a result of the proposed Transaction. Under the Transaction, GridLiance HP will enter into a JOA and O&M Agreement with Winfield and the NTC Project JOA with KPP whereby Winfield will continue to use its existing labor force necessary to operate and maintain the Transmission Facilities.

Q. PLEASE DESCRIBE WHETHER THE PROPOSED TRANSACTION WILL PRESERVE THE JURISDICTION OF THE COMMISSION AND THE CAPACITY OF THE COMMISSION TO EFFECTIVELY REGULATE AND AUDIT PUBLIC UTILITY REGULATIONS IN THE STATE.

A. The Commission will continue to have limited jurisdiction (certificate jurisdiction and any application of transmission wire stringing regulations) over the Transmission Facilities. The Commission's jurisdiction will increase as a result of the Transaction because it will have certificate jurisdiction over GridLiance HP.

Q. PLEASE DESCRIBE THE EFFECT OF THE PROPOSED TRANSACTION ON THE AFFECTED PUBLIC UTILITY SHAREHOLDERS.

A. This standard has limited application in this transaction since none of the applicants have utility shareholders. However, the Transaction will have a positive impact on all applicants for the reasons previously mentioned in my testimony.

Q. PLEASE DESCRIBE HOW THE TRANSACTION MAXIMIZES THE USE OF KANSAS ENERGY RESOURCES.

A. The NTC Project will provide new transmission facility upgrades which will allow better access to energy produced from Kansas energy resources.

Q. PLEASE DESCRIBE WHETHER THE TRANSACTION WILL REDUCE THE POSSIBILITY OF ECONOMIC WASTE.

A. The Transaction will reduce the possibility of economic waste by improving the ability of the NTC Project to reach completion.

Q. PLEASE DESCRIBE WHAT IMPACT THE TRANSACTION HAS ON THE PUBLIC SAFETY.

A. The change in ownership of the Transmission Facilities will not affect public safety. Winfield will continue to comply with all applicable safety rules and regulations. GridLiance HP also has a track record of demonstrating a commitment to public safety and it will apply that same commitment to the ownership and operation of the Transmission Facilities. As Mr. Useldinger discusses, GridLiance HP's internal compliance program and safety policies will complement those already established by Winfield.

X. <u>ISSUANCE OF THE REQUESTED CERTIFICATE WILL PROMOTE THE PUBLIC CONVENIENCE</u>

Q. WITH RESPECT TO GRIDLIANCE HP'S REQUEST FOR CERTIFICATES OF CONVENIENCE AND AUTHORITY FOR TRANSMISSION RIGHTS ONLY TO OWN AND OPERATE THE TRANSMISSION FACILITIES AND TO CONSTRUCT AND OWN THE TRANSMISSION LINE UPGRADES BEING CONSTRUCTED PURSUANT TO THE NTC PROJECT, CAN YOU EXPLAIN WHY THE GRANTING OF THOSE CERTIFICATES WILL PROMOTE THE PUBLIC INTEREST?

A. Yes. It is my understanding the factors that the Commission takes into account on determining whether a request for a certificate of convenience and authority (COC) will promote the public interest are as follows:

(a) Whether any resulting competition will be ruinous or publicly beneficial.
(b) Whether the proposed action will promote adequate and efficient service.
(c) Whether the action will unnecessarily duplicate existing facilities designed for the same purpose in the same area.
(d) the financial and technical capability of the applicants.
(e) the applicants' experience and performance in providing similar service in other service territories or jurisdictions.
(f) the impact on existing customers and service providers that will result from granting the applicants the certificate requested.

Based upon those factors the COCs requested in the Joint Application will promote the public interest and should be granted.

Q. WILL ISSUANCE OF THE COCS RESULT IN RUINOUS COMPETITION OR BE BENEFICIAL TO THE PUBLIC.

A. As previously described in my testimony, GridLiance HP will not be serving any retail customers. The Transmission Facilities will be providing transmission services to retail electric utilities and will not be competing with them. Granting GridLiance HP a limited transmission rights-only certificate will not result in any retail competition in the area, but instead benefit the public by bolstering transmission service to the area. The NTC Project promotes the Transco model which will result in increased competition and lower costs.

Q. WILL ISSUANCE OF THE COCS RESULT IN PROMOTING ADEQUATE AND EFFICIENT SERVICE.

A. The Transaction will result in adequate financing for the NTC Project, which upon construction and placed in service will provide for additional and more reliable transmission capacity and which will promote greater efficiency in transmission service to electric customers in the area.

Q. WILL THE ISSUANCE OF THE COCS RESULT IN THE DUPLICATION OF EXISTING FACILITIES FOR THE SAME PURPOSE IN THE AREA?

A. The Transaction will not result in the duplication of existing facilities. The Transaction involves, in part, the sale of a majority interest in existing transmission lines and the assignment of the NTC Project, which involves upgrading existing transmission facilities so there will not be any duplication of existing facilities.

Q. DOES GRIDLIANCE HP HAVE THE FINANCIAL AND TECHNICAL CAPABILITIES TO OWN AND MANAGE THE TRANSMISSION FACILITIES AND THE CONSTRUCTION, OWNERSHIP AND MANAGEMENT OF THE TRANSMISSION LINE BEING BUILT UNDER THE NTC PROJECT?

A. Yes. As set forth in the Direct Testimony of Mr. Zybak, GridLiance HP has the financial capability to own and manage the Transmission Facilities and to finance the NTC Project. GridLiance HP has already established financial capability with SPP by meeting SPP's requirements for a Qualified RFP Participant that may bid on and be selected to construct transmission projects identified through SPP's regional transmission planning process. As part of that qualification process, GridLiance HP provided a bonding indication letter committing to issue a surety bond meeting SPP's financial criteria. In addition, GridLiance HP has access to capital from its ultimate parent, Blackstone, which currently manages approximately $457 billion in assets.

GridLiance HP's pro forma balance sheet and income statement with adjustments showing the results of the Transaction are attached as *Appendix F* to the Joint Application and sponsored by Mr. Zybak.

Q. DOES GRIDLIANCE HP'S EXPERIENCE AND PERFORMANCE IN PROVIDING SIMILAR SERVICE IN OTHER SERVICE TERRITORIES AND JURISDICTIONS DEMONSTRATE ITS CAPABILITY TO OWN AND MANAGE THE TRANSMISSION FACILITIES AND THE CONSTRUCTION, OWNERSHIP AND MANAGEMENT OF THE TRANSMISSION LINE BEING BUILT UNDER THE NTC PROJECT?

A. Yes. As set forth in the Direct Testimony of Mr. Useldinger, GridLiance HP has the qualifications to provide the proposed service. As with financial capability, GridLiance HP has established its technical capability through the SPP Qualified RFP Participant process, which requires an applicant to show that it has the requisite expertise by describing its capability, experience, and process with respect to managerial criteria including transmission project development; safety; transmission operations; transmission maintenance; ability to comply with good utility practice, SPP criteria, and industry standards; ability to comply with NERC reliability standards; and any other relevant project development expertise. *See*, SPP Tariff at Attachment Y §III(1)(b)(iii) (Managerial Criteria). Individuals involved in the planning and operation of GridLiance HP have substantial experience in areas relating to electric transmission, distribution, rates, load research, and regulatory affairs, and the GridLiance companies own nearly 600 miles of transmission lines and related equipment in SPP and CAISO.

Q. WHAT WILL BE THE IMPACT ON EXISTING CUSTOMERS AND SERVICE PROVIDERS THAT WILL RESULT FROM GRANTING THE COCS REQUESTED IN THE JOINT APPLICATION?

A. The Transaction will result in increased reliability and transmission capacity in the area. Consequently, the electric customers served in the area will receive the benefit of increased transmission reliability and capacity. GridLiance HP is focused solely on the reliable and efficient operation and development of the transmission grid. By awarding the requested COC to GridLiance HP, the public will gain the industry participation of an entity solely focused on working within the SPP planning process to efficiently and cost-effectively address transmission infrastructure needs in Kansas and the surrounding multi-state area. GridLiance HP will also bring the financial backing of Blackstone along with the expertise of GridLiance HP's leadership team to Kansas service to support these efforts.

## XI. CONCLUSION

Q. IN YOUR OPINION, IS APPROVAL OF THE PROPOSED TRANSACTION IN THE PUBLIC INTEREST FOR THE STATE OF KANSAS?

A. Yes. For the reasons previously stated, I believe the Proposed Transaction is in the public interest.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

## VERIFICATION OF J. BRETT HOOTON

STATE OF Texas )
)ss:
COUNTY OF Dallas )

I, J. Brett Hooton, being first duly sworn on oath, depose and state that I am the witness identified in the foregoing Direct Testimony of J. Brett Hooton; that I have read the testimony and am familiar with its contents; and that the facts set forth therein are true and correct.

J. Brett Hooton

J. Brett Hooton

SUBSCRIBED AND SWORN to before me this 14th day of February, 2019.

Janet Virga

Notary Public

Appointment/Commission Expires: February 9, 2023

NOTARY PUBLIC STATE OF TEXAS

JANET M. VIRGA
Notary Public, State of Texas
Comm. Expires 02-09-2023
Notary ID 13010994-2

GRIDLIANCE

EXHIBIT JBH-1

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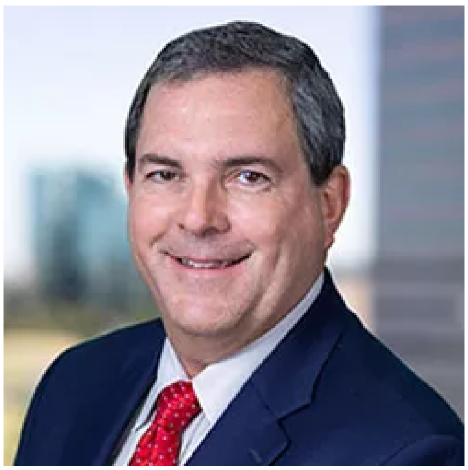
# J. Calvin Crowder

## President and Chief Executive Officer



Calvin Crowder is president and CEO of GridLiance, an independent transmission company that partners with electric cooperatives, municipal utilities, and others to unlock the financial value of existing transmission assets and invest in transmission projects. Crowder is responsible for the strategic vision and overall business operation of GridLiance as it invests in transmission infrastructure and plans for the future and improves the reliability of the grid.

With nearly 30 years of electric utility experience, Crowder was named president and CEO of GridLiance in 2017. Previously, he served as the president of GridLiance South Central, the company's subsidiary overseeing business development in ERCOT, MISO South and the New Mexico electric regions.

Before joining the company, Crowder held several roles of increasing responsibility at American Electric Power, one of the largest electric utilities in the United States, rising to the rank of executive director. In 2007, he was named president of Electric Transmission Texas, LLC, a jointly owned subsidiary of AEP and Berkshire Hathaway Energy. There he oversaw the growth of ETT, which constructs, owns, and operates transmission facilities as a regulated utility within the Electric Reliability Council of Texas, to $3 billion in assets.

Prior to working at AEP, Crowder held a variety of executive and policy leadership roles at Central and South West Corporation. He began his career in the electric utility industry at Central Power and Light Company in Corpus Christi, Texas.

Crowder earned a Bachelor of Arts in economics and a Master of Arts in regulatory economics from New Mexico State University. He serves on the board of the Gulf Coast Power Association and Big Brothers and Big Sisters Lone Star. Previously, he served on the board of the Make-A-Wish Foundation of Central and South Texas.

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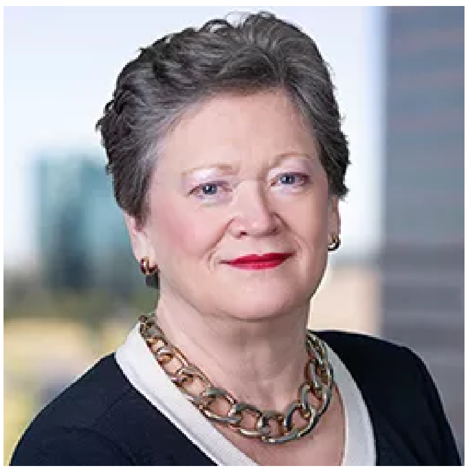
GRIDLIANCE



# N. Beth Emery

## Senior Vice President

General Counsel and Secretary



Beth Emery is senior vice president, general counsel and secretary for GridLiance, the nation's first independent transmission company primarily focused on working with Public Power (municipal utilities, joint action agencies and electric cooperatives) to address and solve their transmission needs.

Emery has been a member of GridLiance's senior team since its inception in 2014, bringing more than 30 years of experience in the energy and regulatory fields. Prior to GridLiance, Emery was a national law firm Partner for almost two decades, advising on the development of generation and transmission projects and regulatory compliance for all aspects of the electric industry at the state and federal levels.

Earlier in her career, Emery served as the first General Counsel for the California Independent System Operator Corporation, and as the first in-house General Counsel for CPS Energy, the nation's largest municipally-owned electric and gas utility.

Emery earned a B.A. from the University of Oklahoma, Norman with highest honors. She also earned a J.D. from Harvard Law School and is admitted to practice in the District of Columbia and Texas.

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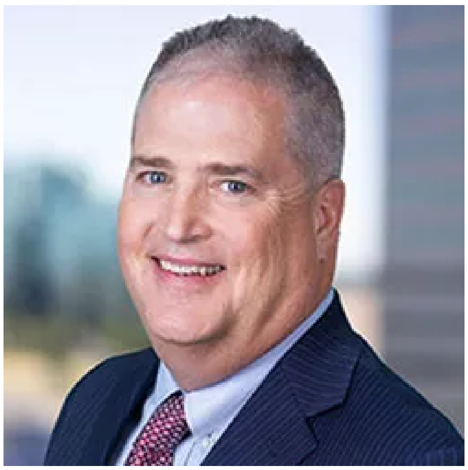
# Noman L. Williams

## Senior Vice President

Operations



Noman Williams is senior vice president of operations for GridLiance, an independent transmission company primarily focused on working with electric cooperatives, municipal utilities, and others to address and solve their transmission needs. In his role, Williams is responsible for operations and maintenance for GridLiance.

Williams has been a member of GridLiance's senior team since its inception in 2014, bringing more than 30 years of executive, O&M, system operations, engineering leadership, and management experience in the electric utility industry to his role. Prior to GridLiance, Williams served as vice president of transmission policy and compliance for Sunflower Electric Power Corporation, where he was responsible for the engineering services program for Sunflower Member cooperatives, which included construction work, long-term planning, and transmission line and substation design and construction.

Williams earned a Bachelor of Science in electrical engineering from Washington State University and an MBA from Colorado State University. He also holds numerous leadership positions in national and regional energy organizations, serving as chair of the Market Operations Policy Committee for SPP, and chairman for the Transmission Working Group (SPP). Williams also is vice chair of the NERC Planning Committee and NERC Planning Executive Committee.

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# Justin M. Campbell

## Senior Vice President

Chief Development Officer

Justin Campbell serves as senior vice president, chief development officer for GridLiance and as president of its subsidiary, GridLiance West Utilities. He has more than 15 years of experience in the utility industry and brings deep corporate development and financial experience to GridLiance, the nation's first independent transmission company that is focused on partnering with cooperatives and public power utilities in its mission to build, buy and own transmission facilities for the long term.

In his role as chief development officer, Campbell is responsible for the growth of the company's portfolio of transmission assets through acquisitions and the development of new partner relationships. As president of GridLiance West Utilities, Campbell also manages the company's assets in the western interconnect, which includes more than 160 miles of high-voltage transmission lines in Nevada within the footprint of the California ISO.

Before joining GridLiance, Campbell served as vice president of Edison Transmission, LLC, an affiliate of Southern California Edison formed to pursue new growth opportunities nationwide. There Campbell helped develop the company's competitive strategy and led business development initiatives in the Regional Transmission Organization regions of CAISO, Midcontinent Independent System Operator, PJM Interconnection, and Southwest Power Pool. Prior to that, Campbell held roles in Edison International's strategic planning group and Southern California Edison's Transmission & Distribution business unit.

Campbell began his career in the utility industry at the U.S. Federal Energy Regulatory Commission in 2003. At FERC, he worked on policy related to market-based rate sales of wholesale power and affiliate transaction rules. Campbell then worked for Houlihan Lokey, a global investment bank, where he managed a diverse team handling complex financial analysis including the valuation of public and private businesses.

Campbell earned a Master of Business Administration from the University of Southern California and a Bachelor of Science in economics and engineering science from Vanderbilt University.

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# Alison Zimlich

## Senior Vice President

Chief Financial Officer

Alison Zimlich is senior vice president, chief financial officer for GridLiance, the nation's first independent transmission company to primarily focus on partnering with cooperatives, municipals, joint action agencies, and irrigation districts. In this role, Zimlich is responsible for all of the company's financial functions including accounting, tax, treasury and finance. She also manages human resources.

Zimlich brings more than 20 years of experience in the power and utilities sector to her role. Before joining GridLiance in 2017, Zimlich served as the chief financial officer and treasurer of Panda Power Funds where she was responsible for the firm's accounting, tax, treasury and financial planning functions during its high growth period. Zimlich began her career in the industry at The AES Corporation. During her 17 years at AES, she held roles of increasing responsibility, serving in a variety of finance and business development roles before rising to the rank of CFO for the company's North America Generation division. In that role, she managed the financial strategy and operations for the division's 25 thermal and wind generation businesses located in the U.S., Puerto Rico and Mexico, which generated $1.5 billion in annual revenue. Prior to joining AES, Zimlich worked as a tax consultant at EY.

Zimlich earned a Bachelor of Business Administration degree in accounting at Texas State University and a Master of Science degree in taxation from American University. She is a certified public accountant and a chartered global management accountant.

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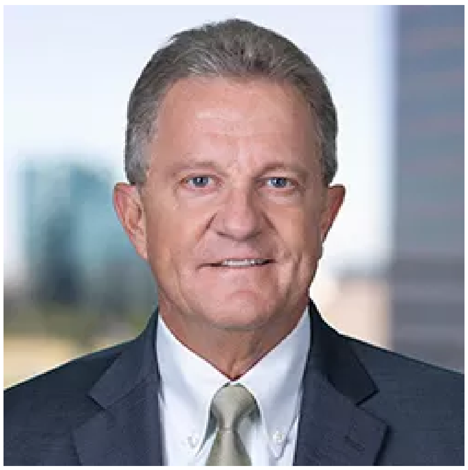
# Trent Carlson

## Senior Vice President

Regulatory & Corporate Services



Trent Carlson serves as senior vice president, regulatory and corporate services at GridLiance, an independent transmission company that partners with electric cooperatives, municipal utilities, and renewable developers to unlock the value of their transmission assets and improve grid reliability. In this role, he is responsible for regulatory affairs, compliance, communications, marketing, and information technology.

Carlson joined GridLiance in 2014, bringing more than 30 years of diverse electric industry leadership, utility operations, business development and management experience to the company. During his career, Carlson has helped launch several electric industry startups including an electric cooperative, a consulting firm, two independent system operators, and a transmission operating company.

Before joining GridLiance, Carlson served as vice president of regulatory affairs and compliance at JP Morgan Ventures Energy Corporation, the commodity trading division of JPMorgan Chase & Co. In this role, he managed regulatory affairs and wholesale power compliance activities for the business. Before joining JP Morgan, he was vice president of regulatory affairs at RRI Energy, formerly known as Reliant Energy.

During his career, Carlson has served as a board member on the Western Power Trading Forum, California Independent Energy Producers Association, and the Alliance for Retail Energy Markets. He also has served on the ERCOT Technical Advisory Committee and QSE Managers' Working Group.

Carlson earned his Bachelor of Science in electrical engineering with a concentration in power systems, and a Master of Science in electrical engineering with a concentration in electric utility Management at New Mexico State University.

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**SPP-NTC-200466**

# SPP
# Notification to Construct

September 21, 2017

Mr. Derek Brown
Westar Energy, Inc.
P.O. Box 889
Topeka, KS 66601

RE: Notification to Construct Approved Reliability Network Upgrades

Dear Mr. Brown,

Pursuant to Section 3.3 of the Southwest Power Pool, Inc. ("SPP") Membership Agreement and Attachments O and Y of the SPP Open Access Transmission Tariff ("OATT"), SPP provides this Notification to Construct ("NTC") directing Westar Energy, Inc. ("WR"), as the Designated Transmission Owner, to construct the Network Upgrade(s).

On May 12, 2017, SPP concluded that the projects are required on the WR system to fulfill Transmission Service Requests as detailed in Aggregate Facility Study SPP-2016-AG2-AFS-2. On June 30, 2017, SPP received all Transmission Service Agreements associated with the upgrades listed below.

**New Network Upgrades**

**Project ID:** 51249
**Project Name:** Line - City of Winfield - Oak 69 kV Reconductor
**Need Date for Project:** 6/1/2021
**Estimated Cost for Project:** $3,337,616

> **Network Upgrade ID:** 71954
> **Network Upgrade Name:** City of Winfield - Rainbow 69 kV Ckt 1
> **Network Upgrade Description:** Reconductor 4 miles of 69 kV transmission line from City of Winfield to Rainbow.
> **Network Upgrade Owner:** WR
> **MOPC Representative(s):** John Olsen, Mo Awad
> **TWG Representative:** N/A
> **Categorization:** Regional Reliability

Network Upgrade Specification: All elements and conductor must have at least an emergency rating of 46 MVA.
**Network Upgrade Justification:** Identified in SPP-2016-AG2-AFS-2.
**Estimated Cost for Network Upgrade (current day dollars):** $1,467,084
**Cost Allocation of the Network Upgrade:** Base Plan
**Estimated Cost Source:** SPP
**Date of Estimated Cost:** 2/28/2017

**Network Upgrade ID:** 71955
**Network Upgrade Name:** Oak - Rainbow 69 kV Ckt 1
**Network Upgrade Description:** Reconductor 5.1 miles of 69 kV transmission line from Oak to Rainbow.
**Network Upgrade Owner:** WR
**MOPC Representative(s):** John Olsen, Mo Awad
**TWG Representative:** N/A
**Categorization:** Regional Reliability
**Network Upgrade Specification:** All elements and conductor must have at least an emergency rating of 48 MVA.
**Network Upgrade Justification:** Identified in SPP-2016-AG2-AFS-2.
**Estimated Cost for Network Upgrade (current day dollars):** $1,870,532
**Cost Allocation of the Network Upgrade:** Base Plan
**Estimated Cost Source:** SPP
**Date of Estimated Cost:** 2/28/2017

**Project ID:** 51252
**Project Name:** XFR - Creswell 138/69/13.2 kV Transformers
**Need Date for Project:** 6/1/2021
**Estimated Cost for Project:** $5,922,924

**Network Upgrade ID:** 71958
**Network Upgrade Name:** Creswell (CRSW TX-1) 138/69/13.2 kV Transformer Ckt 1
**Network Upgrade Description:** Upgrade Creswell (CRSW TX-1) 138/69/13.2 kV transformer to 150/165 MVA.
**Network Upgrade Owner:** WR
**MOPC Representative(s):** John Olsen, Mo Awad
**TWG Representative:** N/A
**Categorization:** Regional Reliability
**Network Upgrade Specification:** All elements and conductor must have at least an emergency rating of 116 MVA.
**Network Upgrade Justification:** Identified in SPP-2016-AG2-AFS-2.
**Estimated Cost for Network Upgrade (current day dollars):** $2,961,462
**Cost Allocation of the Network Upgrade:** Base Plan

**Estimated Cost Source:** SPP
**Date of Estimated Cost:** 2/28/2017

**Network Upgrade ID:** 71959
**Network Upgrade Name:** Creswell (CRSW TX-2) 138/69/13.2 kV Transformer Ckt 2
**Network Upgrade Description:** Upgrade Creswell (CRSW TX-2) 138/69/13.2 kV transformer to 150/165 MVA.
**Network Upgrade Owner:** WR
**MOPC Representative(s):** John Olsen, Mo Awad
**TWG Representative:** N/A
**Categorization:** Regional Reliability
**Network Upgrade Specification:** All elements and conductor must have at least an emergency rating of 116 MVA.
**Network Upgrade Justification:** Identified in SPP-2016-AG2-AFS-2.
**Estimated Cost for Network Upgrade (current day dollars):** $2,961,462
**Cost Allocation of the Network Upgrade:** Base Plan
**Estimated Cost Source:** SPP
**Date of Estimated Cost:** 2/28/2017

## Commitment to Construct

Please provide to SPP a written commitment to construct the Network Upgrade(s) within 90 days of the date of this NTC, in addition to providing a construction schedule and an updated ±20% cost estimate, NTC Project Estimate, in the Standardized Cost Estimate Reporting Template for the Network Upgrade(s). Failure to provide a sufficient written commitment to construct as required by the SPP OATT could result in the Network Upgrade(s) being assigned to another entity.

## Mitigation Plan

The Need Date represents the timing required for the Network Upgrade(s) to address the identified need. Your prompt attention is required for formulation and approval of any necessary mitigation plans for the Network Upgrade(s) included in the Network Upgrade(s) if the Need Date is not feasible. Additionally, if it is anticipated that the completion of any Network Upgrade will be delayed past the Need Date, SPP requires a mitigation plan be filed within 60 days of the determination of expected delays.

## Notification of Commercial Operation

Please submit a notification of commercial operation for each listed Network Upgrade to SPP as soon as the Network Upgrade is complete and in-service. Please provide SPP with the actual costs of these Network Upgrades as soon as possible after completion of construction. This will facilitate the timely billing by SPP based on actual costs.

**SPP-NTC-200466**

**<u>Notification of Progress</u>**
On an ongoing basis, please keep SPP advised of any inability on WR's part to complete the approved Network Upgrade(s). For project tracking, SPP requires WR to submit status updates of the Network Upgrade(s) quarterly in conjunction with the SPP Board of Directors meetings. However, WR shall also advise SPP of any inability to comply with the Project Schedule as soon as the inability becomes apparent.

All terms and conditions of the SPP OATT and the SPP Membership Agreement shall apply to this Project, and nothing in this NTC shall vary such terms and conditions.

Don't hesitate to contact me if you have questions or comments regarding these instructions. Thank you for the important role that you play in maintaining the reliability of our electric grid.

Sincerely,

Lanny Nickell

Lanny Nickell
Vice President, Engineering
Phone: (501) 614-3232 • Fax: (501) 482-2022 • lnickell@spp.org

cc: Carl Monroe – SPP
Antoine Lucas – SPP
Jay Caspary – SPP
John Olsen – WR
Mo Awad – WR

**SPP-NTC-200469**

# SPP
# Notification to Construct

February 27, 2018

Mr. Derek Brown
Westar Energy, Inc.
P.O. Box 889
Topeka, KS 66601

RE: Withdrawal of Notification to Construct Approved Reliability Network Upgrade

Dear Mr. Brown,

Southwest Power Pool, Inc. ("SPP") provides this withdrawal of a Notification to Construct ("NTC") to Westar Energy, Inc. ("WR").

On January 17, 2018, SPP concluded that the Network Upgrade listed below should be withdrawn and informed the Project Cost Working Group of the withdrawal on February 9, 2018, per SPP Business Practice 7060 Section 7.1.

**Withdrawal of Upgrade**

**Previous NTC Number:** 200466
**Previous NTC Issue Date:** 9/21/2017
**Project ID:** 51249
**Project Name:** Line – City of Winfield – Oak 69 kV Reconductor

> **Network Upgrade ID:** 71954
> **Network Upgrade Name:** City of Winfield - Rainbow 69 kV Ckt 1
> **Network Upgrade Description:** Reconductor 4 miles of 69 kV transmission line from City of Winfield to Rainbow.
> **Reason for Change:** WR does not own the transmission line. Therefore, they should not have received an NTC for this upgrade.

**SPP-NTC-200469**

**Withdrawal of Network Upgrade**

WR has been made aware of all Network Upgrade(s) withdrawn through the expansion plan process. This letter is the formal notification to stop any further work on this Network Upgrade(s), collect any cost associated with the Network Upgrade(s), and provide this information to SPP.

All terms and conditions of the SPP OATT and the SPP Membership Agreement shall apply to this project(s) and nothing in this letter shall change such terms and conditions.

Don't hesitate to contact me if you have questions or comments about these requests. Thank you for the important role that you play in maintaining the reliability of our electric grid.

Sincerely,

Lanny Nickell

Lanny Nickell
Vice President, Engineering
Phone: (501) 614-3232 • Fax: (501) 482-2022 • lnickell@spp.org

cc: Carl Monroe – SPP
Antoine Lucas – SPP
Jay Caspary – SPP
John Olsen – WR
Mo Awad – WR

**SPP-NTC-200479**

# SPP
# Notification to Construct

February 27, 2018

Mr. James Ging
Kansas Power Pool
100 N. Broadway
Wichita, KS 67202

RE: Notification to Construct Approved Reliability Network Upgrade

Dear Mr. Ging,

Pursuant to Section 3.3 of the Southwest Power Pool, Inc. ("SPP") Membership Agreement and Attachments O and Y of the SPP Open Access Transmission Tariff ("OATT"), SPP provides this Notification to Construct ("NTC") directing Kansas Power Pool ("KPP"), as the Designated Transmission Owner, to construct the Network Upgrade(s).

On May 12, 2017, SPP concluded that the project is required to fulfill Transmission Service Requests as detailed in Aggregate Facility Study SPP-2016-AG2-AFS-2. On June 30, 2017, SPP received all Transmission Service Agreements associated with the upgrade listed below.

## New Network Upgrade

**Project ID:** 51249
**Project Name:** Line - City of Winfield - Oak 69 kV Reconductor
**Need Date for Project:** 6/1/2021
**Estimated Cost for Project:** $9,298,511 (this project cost contains a Network Upgrade not included in this NTC)

> **Network Upgrade ID:** 71954
> **Network Upgrade Name:** City of Winfield - Rainbow 69 kV Ckt 1
> **Network Upgrade Description:** Reconductor 4 miles of 69 kV transmission line from City of Winfield to Rainbow.
> **Network Upgrade Owner:** KPP
> **MOPC Representative(s):** Larry Holloway
> **TWG Representative:** James Ging
> **Categorization:** Regional Reliability

**SPP-NTC-200479**

**Network Upgrade Specification:** All elements and conductor must have at least an emergency rating of 46 MVA.
**Network Upgrade Justification:** Identified in SPP-2016-AG2-AFS-2.
**Estimated Cost for Network Upgrade (current day dollars):** $1,467,084
**Cost Allocation of the Network Upgrade:** Base Plan
**Estimated Cost Source:** SPP
**Date of Estimated Cost:** 2/28/2017

**Commitment to Construct**

Please provide to SPP a written commitment to construct the Network Upgrade(s) within 90 days of the date of this NTC, in addition to providing a construction schedule and an updated ±20% cost estimate, NTC Project Estimate, in the Standardized Cost Estimate Reporting Template for the Network Upgrade(s). Failure to provide a sufficient written commitment to construct as required by the SPP OATT could result in the Network Upgrade(s) being assigned to another entity.

**Mitigation Plan**

The Need Date represents the timing required for the Network Upgrade(s) to address the identified need. Your prompt attention is required for formulation and approval of any necessary mitigation plans for the Network Upgrade(s) included in the Network Upgrade(s) if the Need Date is not feasible. Additionally, if it is anticipated that the completion of any Network Upgrade will be delayed past the Need Date, SPP requires a mitigation plan be filed within 60 days of the determination of expected delays.

**Notification of Commercial Operation**

Please submit a notification of commercial operation for each listed Network Upgrade to SPP as soon as the Network Upgrade is complete and in-service. Please provide SPP with the actual costs of these Network Upgrades as soon as possible after completion of construction. This will facilitate the timely billing by SPP based on actual costs.

**Notification of Progress**

On an ongoing basis, please keep SPP advised of any inability on KPP's part to complete the approved Network Upgrade(s). For project tracking, SPP requires KPP to submit status updates of the Network Upgrade(s) quarterly in conjunction with the SPP Board of Directors meetings. However, KPP shall also advise SPP of any inability to comply with the Project Schedule as soon as the inability becomes apparent.

All terms and conditions of the SPP OATT and the SPP Membership Agreement shall apply to this Project, and nothing in this NTC shall vary such terms and conditions.

**SPP-NTC-200479**

Don't hesitate to contact me if you have questions or comments regarding these instructions. Thank you for the important role that you play in maintaining the reliability of our electric grid.

Sincerely,

Lanny Nickell

Lanny Nickell
Vice President, Engineering
Phone: (501) 614-3232 • Fax: (501) 482-2022 • lnickell@spp.org

cc: Carl Monroe - SPP
Antoine Lucas - SPP
Jay Caspary - SPP
Larry Holloway - KPP

EXHIBIT JBH-3

# AGGREGATE FACILITIES STUDY

## SPP-2016-AG2

Published on 5/12/2017

By SPP Engineering, SPP Transmission Service Studies

# REVISION HISTORY

| DATE OR VERSION NUMBER | AUTHOR | CHANGE DESCRIPTION | COMMENTS |
|---|---|---|---|
| 5/12/2017 | SPP | Original | |
| | | | |
| | | | |

# CONTENTS

# EXECUTIVE SUMMARY

This study report provides preliminary results for Southwest Power Pool, Inc. (SPP) Aggregate Transmission Service Study (ATSS) SPP-2016-AG2. Pursuant to Attachment Z1 of the SPP Open Access Transmission Tariff (OATT), 963 MW of long-term transmission service requests have been studied in this Aggregate Facilities Study (AFS).

The principal objective of the AFS is to identify system problems and potential modifications necessary to facilitate these transfers while maintaining or improving system reliability, as well as summarizing the operating limits and determination of the financial characteristics associated with facility upgrades. Facility upgrade costs are allocated on a prorated basis to all requests positively impacting any individual overloaded facility.

Transmission Customers (Customer) requesting service in this study specified five parameters under which they agreed to confirm service. The five parameters are:

1. Directly Assigned Upgrade Cost
2. Third-Party Upgrade Cost
3. Latest Deferred Start Date
4. Interim Re-dispatch Acceptance
5. Letter of Credit Amount

This final study report provides details and indicates for each request whether any of the five parameters were exceeded. The specific parameters defined by the Customer are confidential and will not be included in this report.

SPP will accept the requests in which the specified study parameters were met and will tender a Service Agreement for each of these requests identifying the terms and conditions of the confirmed service. SPP has refused all requests in which the parameters were exceeded.

All allocated revenue requirements for facility upgrades are assigned to the Customer in the AFS data tables. Potential base plan funding allowable is contingent upon validation of designated resources meeting Attachment J, Section III B criteria.

# INTRODUCTION

All requests for long-term transmission service with a Completed Application received before December 1, 2016 have been included in this ATSS.

The results of the AFS are detailed in Tables 1 through 7. Detailed results depict individual upgrade costs by study and potential base plan allowances determined by Attachments J and Z1 of the SPP OATT.

To understand the extent to which Base Plan Upgrades may be applied to both Point-to-Point (PTP) and Network Integration Transmission Services (NITS), it is necessary to highlight the definition of Designated Resource. Per Section 1 of the SPP OATT, a Designated Resource is:

> "Any designated generation resource owned, purchased or leased by a Transmission Customer to serve load in the SPP Region. Designated Resources do not include any resource, or any

portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Transmission Customer's load on a non-interruptible basis."

Both NITS and PTP service have potential for base plan funding if the conditions for classifying upgrades associated with designated resources as Base Plan Upgrades as defined in Section III.B of Attachment J are met.

Pursuant to Attachment J, Section III.B of the SPP OATT, the Customer must provide SPP information necessary to verify that the new or changed Designated Resource meets the following conditions:

1. Customer's commitment to the requested new or changed Designated Resource must have duration of at least five years.
2. During the first year the Designated Resource is planned to be used by the Customer, the accredited capacity of the Customer's existing Designated Resources plus the lesser of:
    a. The planned maximum net dependable capacity applicable to the Customer or
    b. The requested capacity; shall not exceed 125% of the Customer's projected system peak responsibility determined pursuant to SPP Criteria 2.

According to Attachment Z1 Section V.A, PTP Customers pay the higher of the monthly transmission access charge (base rate) or the monthly revenue requirement associated with the directly assigned portion of the Service Upgrade, if any.

NITS Customers pay the total monthly transmission access charges and the monthly revenue requirement associated with the directly assigned portion of the Service Upgrade, if any.

Customers paying for a directly assigned Network Upgrade shall receive credits for new transmission service using the facility as specified in Attachment Z2.

Facilities identified as limiting the requested Transmission Service have been reviewed to determine the required in-service date of each Network Upgrade. Both previously assigned facilities and the facilities assigned to this request for Transmission Service were evaluated.

In some instances, due to lead times for engineering and construction, Network Upgrades may not be available when required to accommodate a request for Transmission Service. When this occurs, the ATC with available Network Upgrades will be less than the capacity requested during either a portion of or all of the requested reservation period. The ATC may be limited by transmission owner planned projects, expansion plan projects, or Customer assigned upgrades.

Some constraints identified in the AFS were not assigned to the Customer because SPP determined that upgrades are not required due to various reasons or the Transmission Owner has construction plans pending for these upgrades. These facilities are listed by reservation in Table 3. Table 6 lists possible generation pairs that could be used to allow start of service prior to completion of assigned Network Upgrades by utilizing interim re-dispatch. Table 7 lists the costs allocated per request for each Service Upgrade assigned in this AFS.

By taking the transmission service subject to interim redispatch, the Customer agrees to any limitations to Auction Revenue Rights that may result. In the absence of implementation of interim redispatch as requested by SPP for Customer transactions resulting in overloads on limiting facilities, SPP may curtail the Customer's schedule.

# FINANCIAL ANALYSIS

The AFS utilizes the allocated Customer's E&C cost in a present worth analysis to determine the monthly levelized revenue requirement of each facility upgrade over the term of the reservation. In some cases, Network Upgrades cannot be completed within the requested reservation period, thus deferred reservation periods will be utilized in the present worth analysis. If the Customer chose Option 5, Use of Interim Redispatch, in Appendix 1 of the Aggregate Facilities Study Agreement, the present worth analysis of revenue requirements will be based on the deferred term with redispatch in the subsequent AFS. The upgrade levelized revenue requirement includes interest, depreciation, and carrying costs.

Each request for Transmission Service is evaluated independently as the cost associated with each Network Upgrade is assigned to a request. When facilities are upgraded throughout the reservation period, the Customer will pay the total E&C costs and other annual operating costs associated with the new facilities.

In the event that the engineering and construction of a previously assigned Network Upgrade may be accelerated, with no additional upgrades, to accommodate a new request for Transmission Service, the levelized present worth of only the incremental expenses though the reservation period of the new request, excluding depreciation, shall be assigned to the new request. These incremental expenses, excluding depreciation, include:

1. The levelized difference in present worth of the engineering and construction expenses given the change in date to complete construction to account for additional interest expense and reduced engineering and construction expense due to inflation,
2. The levelized present worth of all expediting fees, and
3. The levelized present worth of the incremental annual carrying charges, excluding depreciation and interest, during the new reservation period taking into account both:
    a. The reservation in which the project was originally assigned, and
    b. A reservation, if any, in which the project was previously accelerated.

In the case of a Base Plan Upgrade being deferred or displaced by an earlier in service date for a requested upgrade, the methodology for achievable base plan avoided revenue requirements shall be determined per Attachment J, Section VII.A or Section VII.B, respectively. A deferred Base Plan Upgrade is defined as a different requested Network Upgrade needed at an earlier date that negates the need for the initial Base Plan Upgrade within the planning horizon. A displaced Base Plan Upgrade is defined as the same Network Upgrade being displaced by a requested upgrade needed at an earlier date.

A 40-year service life assumption is utilized for Base Plan funded projects, unless another assumption is provided by the Transmission Owner. A present worth analysis of revenue requirements on a common year basis between the Base Plan and Requested Upgrades was performed to determine avoided Base Plan revenue requirements due to the displacement or deferral of the Base Plan Upgrade by the Requested Upgrade. The difference in present worth between the Base Plan and Requested Upgrades is assigned to the transmission requests impacting this upgrade based on the displacement or deferral.

# MAKE-WHOLE PAYMENT

Make-whole payment (MWP) is a potential cost that may be allocated to a Request in a completed AFS meeting the Study Completion Conditions but with unresolved third party impacts. For a Request with identified third party impact(s) where the Customer has not notified SPP of a successful conclusion to the third-party negotiation by the deadline described in Section III.D.2 of Attachment Z1 in the OATT, SPP will deem the Request to be terminated and withdrawn and the Customer may be subject to a MWP in accordance with Section III.D.4 of Attachment Z1 in the OATT. The calculation of the Customer's MWP shall include any impacts to subsequent completed AFS(s).

The MWP assigned to a withdrawn Request will be any reallocated upgrade costs that are in excess of the sum of (i) the DAUC and (ii) the amounts included in rates, for any remaining confirmed Request(s).

If there is more than one withdrawn Request then the MWP, if any, shall be assigned to the withdrawn Customers based upon the impact of the withdrawal of each withdrawn Customer's request on those upgrades for which the DAUC increased for the confirmed requests, thereby resulting in the MWP. Upgrade costs for facilities only required by the withdrawn Customer's request(s) shall not be included as part of the calculation of the MWP. A Customer required to pay a MWP will enter into a Sponsored Upgrade Agreement with SPP in accordance with Attachment J of the OATT and will be eligible for revenue credits in accordance with Attachment Z2 of the OATT.

# THIRD-PARTY FACILITIES

For third-party facilities listed in Table 3 and Table 5, the Customer is responsible for funding the necessary upgrades of these facilities per Section 21.1 of SPP's OATT. Total E&C cost estimates for required third-party facility upgrades are not applicable. SPP will undertake reasonable efforts to assist the Customer in making arrangements for necessary engineering, permitting, and construction of the third-party facilities. Third-party facility upgrade E&C cost estimates are not utilized to determine the present worth value of levelized revenue requirements for SPP system Network Upgrades.

All modeled facilities within the SPP system were monitored during the development of this study, as well as certain facilities in first-tier neighboring systems. Third-party facilities must be upgraded when it is determined that they are overloaded while accommodating the requested Transmission Service. An agreement between the Customer and third party owner detailing the mitigation of the third party impact must be provided to SPP prior to tendering of a Transmission Service Agreement. These facilities also include those owned by members of SPP who have not placed their facilities under SPP's OATT. Upgrades on the Southwest Power Administration (SWPA) network requires prepayment of the upgrade cost prior to construction of the upgrade.

Third-party facilities are evaluated for only those requests whose load sinks within the SPP footprint. The Customer must arrange with the applicable Transmission Providers for study of third party facilities for service that sinks outside the SPP footprint.

# STUDY METHODOLOGY

## *DESCRIPTION*

The facility study analysis was conducted to determine the steady-state impact of the requested service on the SPP and first tier non-SPP control area systems. The steady-state analysis was performed consistent with current SPP Criteria and NERC Reliability Standards requirements. SPP conforms to NERC Reliability Standards, which provide strict requirements related to voltage violations and thermal overloads during normal conditions and during a contingency. NERC Standards require all facilities to be within normal operating ratings for normal system conditions and within emergency ratings after a contingency.

Normal operating ratings and emergency operating ratings monitored are Rate A and B in the SPP Model Development Working Group (MDWG) models, respectively. The upper bound and lower bound of the normal voltage range monitored is 105% and 95%. The upper bound and lower bound of the emergency voltage range monitored is 105% and 90%. Transmission Owner voltage monitoring criteria is used if more restrictive. The SPS Tuco 230 kV bus voltage is monitored at 92.5% due to pre-determined system stability limitations. The WERE Wolf Creek 345 kV bus voltage is monitored at 103.5% and 98.5% due to transmission operating procedure.

The contingency set includes all SPP control area branches and ties 69 kV and above; first tier non-SPP control area branches and ties 115 kV and above; any defined contingencies for these control areas; and generation unit outages for the control areas with SPP reserve share program redispatch. The monitored elements include all SPP control area branches, ties, and buses 69 kV and above, and all first tier non-SPP control area branches and ties 115 kV and above. Voltage monitoring was performed for SPP control area buses 69 kV and above.

A 3% transfer distribution factor (TDF) cutoff was applied to all SPP control area facilities. For first tier non-SPP control area facilities, a 3% TDF cutoff was applied to AECI, AMRN (Ameren), and ENTR (Entergy) control areas. For voltage monitoring, a 0.02 per unit change in voltage must occur due to the transfer or modeling upgrades to be considered a valid limit to the transfer.

## *MODEL DEVELOPMENT*

SPP used the following 2015 Integrated Transmission Planning (ITP) models, used in the 2016 ITP Near Term, to study the aggregate transfers over a variety of requested service periods and to determine the impact of the requested service on the transmission system:

- 2017 Summer Peak (17SP)
- 2017/18 Winter Peak (17WP)
- 2020 Summer Peak (20SP)
- 2020/21 Winter Peak (20WP)
- 2025 Summer Peak (25SP)
- 2025/26 Winter Peak (25WP)

The Summer Peak models apply to June through September and the Winter Peak models apply to December through March.

The chosen base case models were modified to reflect the current modeling information. One group of requests was developed from the aggregate to model the requested service. From the seasonal models, two system scenarios were developed. Scenario 0 includes projected usage of transmission included in the SPP 2015 Series Cases. Scenario 5 includes transmission service not already included in the SPP 2015 Series Cases.

## *TRANSMISSION REQUEST MODELING*

NITS requests are modeled as Generation to Load transfers in addition to Generation to Generation transfers. NITS requests are modeled as Generation to Load transfers in addition to Generation to Generation because the requested NITS is a request to serve network load with the new designated network resource, and the impacts on Transmission System are determined accordingly. PTP Transmission Service requests are modeled as Generation to Generation transfers. Generation to Generation transfers are accomplished by developing a post-transfer case for comparison by dispatching the request source and redispatching the request sink.

## *TRANSFER ANALYSIS*

Using the selected cases both with and without the requested transfers modeled, the PSS/E Activity ACCC was run on the cases and compared to determine the facility overloads caused or impacted by the transfer. TDF cutoffs (SPP and 1st-Tier) and voltage threshold (0.02 change) were applied to determine the impacted facilities. The PSS/E options chosen to conduct the analysis can be found in Appendix A.

## *CURTAILMENT AND REDISPATCH EVALUATION*

During any period in which SPP determines that a transmission constraint exists on and may impair Transmission System reliability, SPP will take whatever actions are reasonably necessary to maintain reliability. If SPP determines Transmission System reliability can be maintained by redispatching resources, it will evaluate the interim redispatch of units to provide service prior to completion of any assigned Network Upgrades. Any redispatch may not unduly discriminate between the Transmission Owners' use of the Transmission System on behalf of their Native Load Customers and any Customer's use of the Transmission System to serve its designated load. Redispatch was evaluated to provide only interim service during the time frame prior to completion of any assigned Network Upgrades.

SPP determined potential relief pairs to relieve the incremental MW impact on limiting facilities as identified in Table 6. Using the selected cases where the limiting facilities were identified, potential incremental and decremental units were identified by determining the generation amount available for increasing and decreasing from the units' generation amount, maximum generation amount, and minimum generation amount. If the incremental or decremental amount was greater than 1 MW, the unit was considered as a potential incremental or decremental unit.

Generation shift factors were calculated for the potential incremental and decremental units using the Siemens power flow analysis tool, Managing and Utilizing System Transmission (MUST). Relief pairs from the generation shift factors for the incremental and decremental units with a TDF greater than 3% on the limiting constraint were determined from the incremental units with the lowest generation shift factors and decremental units with highest generation shift factors. If the aggregate redispatch amount for the potential relief pair was determined to be three times greater than the lower of the increment or decrement, then the pair was determined not to be feasible and is not included. Customers can request SPP to provide additional relief pairs beyond those determined. The potential relief pairs were not evaluated to determine impacts on limiting facilities in the SPP and first tier systems.

The AFS analyzes the most probable contingencies and does not account for every situation that may be encountered in real-time operation. Because of this, it is possible that the Customer may be curtailed under certain system conditions to allow system operators to maintain the reliability of the transmission network.

# STUDY RESULTS

## *STUDY ANALYSIS RESULTS*

Tables 1 through 7 contain the AFS steady-state analysis results.

### TABLE 1

Table 1 identifies the participating long-term Transmission Service requests included in the AFS. This table lists deferred start and stop dates both with and without redispatch (based on Customer selection of redispatch if available) and the minimum annual allocated ATC without upgrades, the season of first impact, and indicates which requests, if any, had parameters that were exceeded.

### TABLE 2

Table 2 identifies total E&C cost allocated to each Customer, letter of credit requirements, third party E&C cost assignments, potential base plan E&C funding (lower of allocated E&C or Attachment J Section III B criteria), PTP base rate charge, total revenue requirements for assigned upgrades with consideration of potential base plan funding, and final total cost allocation to the Customer. In addition, Table 2 identifies SWPA upgrade costs which require prepayment in addition to other allocated costs.

### TABLE 3

Table 3 provides additional details for each request including all assigned facility upgrades required, allocated E&C costs, allocated revenue requirements for upgrades, upgrades not assigned to the Customer but required for service to be confirmed, credits to be paid for previously assigned AFS or Generation Interconnection Network Upgrades, and any required third party upgrades.

### TABLE 4

Table 4 lists all upgrade requirements with associated solutions needed to provide Transmission Service for the AFS, earliest date upgrade is required (DUN), estimated date the upgrade will be completed and in service (EOC), and estimated E&C cost.

### TABLE 5

Table 5 lists identified third-party constrained facilities.

## TABLE 6

Table 6 identifies potential redispatch pairs available to relieve the aggregate impacts on identified constraints to prevent deferral of start of service. MW amounts listed for redispatch are maximum values observed in a long term study and may only be available in a reduced amount or unavailable at any given time.

## TABLE 7

Table 7 lists costs allocated per request for Service Upgrades assigned in this AFS.

## BASE PLAN UPGRADES

The potential base plan funding allowable is contingent on meeting each of the conditions for classifying upgrades associated with designated resources as Base Plan Upgrades as defined in Section III.B of Attachment J. If the additional capacity of the new or changed Designated Resource exceeds the 125% resource to load forecast for the year of start of service, the requested resource is not eligible for base plan funding of required Network Upgrades and the full cost of the upgrades is assignable to the Customer.

If the request is for wind generation, the total requested capacity of wind generation plus existing wind generation capacity shall not exceed 20% of the customer's projected system peak responsibility in the first year the Designated Resource is planned to be used by the customer. If the five-year term and 125% resource to load criteria are met, (as well as the 20% wind resource to load criteria for wind generation requests) the requested capacity is multiplied by $180,000 to determine the potential base plan funding allowable. The maximum potential base plan funding allowable may be less than the potential base plan funding allowable, due to the E&C cost allocated to the customer being lower than the potential amount allowable to the Customer. The Customer is responsible for any assigned upgrade costs in excess of potential base plan E&C funding allowable. Network Upgrades required for wind generation requests located in a zone other than the Customer's Point of Delivery (POD) shall be allocated as 67% base plan region-wide charge and 33% directly assigned to the Customer.

Regarding application of base plan funding for PTP requests, if PTP base rate exceeds upgrade revenue requirements without taking into effect the reduction of revenue requirements by potential base plan funding, then the base rate revenue pays back the Transmission Owner for upgrades and no base plan funding is applicable as the access charge must be paid as it is the higher of "OR" pricing.

However, if initially the upgrade revenue requirements exceed the PTP base rate, then potential base plan funding would be applicable. The test of the higher of "OR" pricing would then be made against the remaining assignable revenue requirements versus PTP base rate. Examples are as follows:

***Example A:***

E&C allocated for upgrades is $74 million with revenue requirements of $140 million and PTP base rate of $101 million. Potential base plan funding is $47 million, with the difference of $27 million E&C assignable to the Customer. If the revenue requirements for the assignable portion is $54 million and the PTP base rate is $101 million, the Customer will pay the higher amount (so-called "or pricing") of $101 million base rate of which $54 million revenue requirements will be paid back to the Transmission Owners for the upgrades, and the remaining revenue requirements of $86 million ($140 million less $54 million) will be paid by base plan funding.

***Example B:***

E&C allocated for upgrades is $74 million with revenue requirements of $140 million and PTP base rate of $101 million. Potential base plan funding is $10 million with the difference of $64 million E&C assignable to the Customer. If the revenue requirements for this assignable portion is $128 million and the PTP base rate is $101 million, the Customer will pay the higher amount of $128 million revenue requirements to be paid back to the Transmission Owners, and the remaining revenue requirements of $12 million ($140 million less $128 million) will be paid by base plan funding.

***Example C:***

E&C allocated for upgrades is $25 million with revenue requirements of $50 million and PTP base rate of $101 million. Potential base plan funding is $10 million. Base plan funding is not applicable as the higher amount of PTP base rate of $101 million must be paid and the $50 million revenue requirements will be paid from this.

The 125% resource to load determination is performed on a per-request basis and is not based on a total of Designated Resource requests per Customer.

## *STUDY DEFINITIONS*

- The date upgrade needed date (DUN) is the earliest date the upgrade is required to alleviate a constraint considering all requests.
- End of construction (EOC) is the estimated date the upgrade will be completed and in service.
- Total engineering and construction cost (E&C) is the upgrade solution cost as determined by the Transmission Owner.
- The Transmission Customer's allocation of the E&C cost is based on the request (1) having an impact of at least 3% on the limiting element, and (2) having a positive impact on the upgraded facility.
- Minimum ATC is the portion of the requested capacity that can be accommodated without upgrading facilities.
- Annual ATC allocated to the Transmission Customer is determined by the least amount of allocated seasonal ATC within each year of a reservation period.

# CONCLUSION

The results of the AFS show that limiting constraints exist in many areas of the regional Transmission System. Due to these constraints, Transmission Service cannot be granted unless noted in Table 3.

SPP will accept the requests in which the specified study parameters were met and will tender a Service Agreement for each of these requests identifying the terms and conditions of the confirmed service. SPP has refused all requests in which the parameters were exceeded.

# APPENDIX A

PSS/E CHOICES IN RUNNING LOAD FLOW PROGRAM AND ACCC

## *BASE CASE SETTINGS:*

| | |
|---|---|
| • Solutions: | Fixed slope decoupled Newton-Raphson solution (FDNS) |
| • Tap adjustment: | Stepping |
| • Area Interchange Control: | Tie lines and loads |
| • Var limits: | Apply immediately |
| • Solution Options: | X Phase shift adjustment<br>_ Flat start<br>_ Lock DC taps<br>_ Lock switched shunts |

## *ACCC CASE SETTINGS:*

| | |
|---|---|
| • Solutions: | AC contingency checking (ACCC) |
| • MW mismatch tolerance: | 0.5 |
| • System intact rating: | Rate A |
| • Contingency case rating: | Rate B |
| • Percent of rating: | 100 |
| • Output code: | Summary |
| • Min flow change in overload report: | 3mw |
| • Excld cases w/ no overloads from report: | YES |
| • Exclude interfaces from report: | NO |
| • Perform voltage limit check: | YES |
| • Elements in available capacity table: | 60000 |
| • Cutoff threshold for available capacity table: | 99999.0 |
| • Min. contng. Case Vltg chng for report: | 0.02 |
| • Sorted output: | None |
| • Newton Solution: | |
| • Tap adjustment: | Stepping |
| • Area interchange control: | Tie lines and loads (Disabled for generator outages) |
| • Var limits: | Apply immediately |
| • Solution options: | X Phase shift adjustment<br>_ Flat start<br>_ Lock DC taps<br>_ Lock switched shunts |

**Table 1 - Long-Term Transmission Service Requests Included in Aggregate Facility Study**

| Customer | Study Number | Reservation | POR | POD | Requested Amount | Requested Start Date | Requested Stop Date | Deferred Start Date without interim redispatch (Parameter) | Deferred Stop Date without interim redispatch | Start Date with interim redispatch | Stop Date with interim redispatch | Minimum Allocated ATC (MW) within reservation period | Season of Minimum Allocated ATC within reservation period | [5]One or More Study Parameters Exceeded |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APM | AG2-2016-001 | 83784194 | AECI | CSWS | 13 | 6/1/2017 | 6/1/2027 | 6/1/2017 | 6/1/2027 | Note 4 | Note 4 | 13 | 17SP | NO |
| BRPS | AG2-2016-002 | 83796571 | WAUE | NPPD | 7 | 1/1/2018 | 1/1/2048 | 1/1/2018 | 1/1/2048 | 1/1/2018 | 1/1/2048 | 0 | 20SP | NO |
| ETEC | AG2-2016-003 | 83835435 | CSWS | CSWS | 40 | 1/1/2018 | 10/1/2040 | 1/1/2018 | 10/1/2040 | 1/1/2018 | 10/1/2040 | 0 | 20SP | NO |
| KMEA | AG2-2016-005 | 83795938 | SPA | WR | 1 | 6/1/2017 | 6/1/2027 | 6/1/2017 | 6/1/2027 | 6/1/2017 | 6/1/2027 | 0 | 17SP | NO |
| KPP | AG2-2016-006 | 83796255 | NPPD | SECI | 1 | 7/1/2017 | 7/1/2027 | 7/1/2017 | 7/1/2027 | 7/1/2017 | 7/1/2027 | 1 | 20SP | NO |
| KPP | AG2-2016-007 | 83796263 | SECI | WR | 5 | 7/1/2017 | 7/1/2027 | 7/1/2017 | 7/1/2027 | 7/1/2017 | 7/1/2027 | 0 | 20SP | NO |
| KPP | AG2-2016-008 | 83796275 | WR | WR | 2 | 7/1/2017 | 7/1/2027 | 7/1/2017 | 7/1/2027 | 7/1/2017 | 7/1/2027 | 0 | 20SP | NO |
| KPP | AG2-2016-009 | 83796278 | WR | WR | 4 | 7/1/2017 | 7/1/2027 | 7/1/2017 | 7/1/2027 | 7/1/2017 | 7/1/2027 | 0 | 20SP | NO |
| MEUC | AG2-2016-010 | 83626579 | MPS | AECI | 25 | 6/1/2017 | 6/1/2022 | 6/1/2017 | 6/1/2022 | 6/1/2017 | 6/1/2022 | 0 | 17SP | NO |
| MEUC | AG2-2016-011 | 83835653 | MPS | AECI | 25 | 6/1/2018 | 6/1/2023 | 6/1/2018 | 6/1/2023 | 6/1/2018 | 6/1/2023 | 0 | 20SP | NO |
| MOWR | AG2-2016-012 | 83507637 | KCPL | MPS | 18 | 6/1/2017 | 6/1/2022 | 6/1/2017 | 6/1/2022 | 6/1/2017 | 6/1/2022 | 0 | 17SP | NO |
| OGE | AG2-2016-013 | 83674448 | OKGE | OKGE | 57 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | 57 | 20SP | NO |
| OGE | AG2-2016-014 | 83674456 | OKGE | OKGE | 57 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | 57 | 20SP | NO |
| OGE | AG2-2016-015 | 83674479 | OKGE | OKGE | 57 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | 57 | 20SP | NO |
| OGE | AG2-2016-016 | 83674483 | OKGE | OKGE | 57 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | 57 | 20SP | NO |
| OGE | AG2-2016-017 | 83674491 | OKGE | OKGE | 57 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | 57 | 20SP | NO |
| OGE | AG2-2016-018 | 83674495 | OKGE | OKGE | 57 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | 57 | 20SP | NO |
| OGE | AG2-2016-019 | 83833583 | OKGE | OKGE | 49 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | 49 | 20SP | NO |
| OGE | AG2-2016-020 | 83835408 | OKGE | OKGE | 8 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | 8 | 20SP | NO |
| OTPW | AG2-2016-021 | 83837043 | OTP | WAUE | 27 | 6/1/2017 | 6/1/2022 | 6/1/2017 | 6/1/2022 | 6/1/2017 | 6/1/2022 | 27 | 17SP | NO |
| OTPW | AG2-2016-022 | 83837158 | OTP | WAUE | 16 | 6/1/2017 | 6/1/2018 | 6/1/2017 | 6/1/2018 | 6/1/2017 | 6/1/2018 | 16 | 17SP | NO |
| PEC | AG2-2016-023 | 83835426 | WFEC | WFEC | 24 | 1/1/2018 | 1/1/2023 | 1/1/2018 | 1/1/2023 | 1/1/2018 | 1/1/2023 | 24 | 20SP | NO |
| PEC | AG2-2016-024 | 83835487 | WFEC | WFEC | 75 | 6/1/2017 | 6/1/2022 | 6/1/2018 | 6/1/2023 | 6/1/2017 | 6/1/2022 | 0 | 17SP | NO |
| PEC | AG2-2016-025 | 83835507 | SPA | SPA | 27 | 6/1/2017 | 6/1/2027 | 6/1/2017 | 6/1/2027 | 6/1/2017 | 6/1/2027 | 27 | 17SP | NO |
| PEC | AG2-2016-026 | 83835540 | OKGE | OKGE | 11 | 6/1/2017 | 6/1/2027 | 6/1/2017 | 6/1/2027 | 6/1/2017 | 6/1/2027 | 11 | 17SP | NO |
| PEC | AG2-2016-027 | 83835602 | WFEC | WFEC | 21 | 6/1/2017 | 6/1/2027 | 6/1/2017 | 6/1/2027 | 6/1/2017 | 6/1/2027 | 21 | 17SP | NO |
| RPGI | AG2-2016-028 | 83751511 | AMRN | WAUE | 6 | 6/1/2017 | 6/1/2024 | 6/1/2017 | 6/1/2024 | 6/1/2017 | 6/1/2024 | 0 | 17SP | NO |
| WRGS | AG2-2016-029 | 83823834 | WR | WR | 20 | 6/1/2017 | 6/1/2022 | 6/1/2017 | 6/1/2022 | 6/1/2017 | 6/1/2022 | 15 | 17SP | NO |
| WRGS | AG2-2016-031 | 83823856 | WR | WR | 70 | 6/1/2017 | 6/1/2022 | 6/1/2017 | 6/1/2022 | 6/1/2017 | 6/1/2022 | 48 | 17SP | NO |
| | | | | | 837 | | | | | | | | | |

## Requests with Study Parameters Exceeded

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KCPS | AG2-2016-004 | 83674359 | WPEK | KCPL | 50 | 6/1/2017 | 11/30/2031 | 6/1/2020 | 11/30/2031 | Note 4 | Note 4 | 0 | 17SP | YES |
| WRGS | AG2-2016-030 | 83823850 | WR | WR | 26 | 6/1/2017 | 6/1/2022 | 12/31/2018 | 12/31/2023 | 6/1/2017 | 6/1/2022 | 0 | 17SP | YES |
| WRGS | AG2-2016-032 | 83823860 | WR | WR | 50 | 6/1/2017 | 6/1/2022 | 6/1/2020 | 6/1/2025 | 6/1/2017 | 6/1/2022 | 0 | 17SP | YES |
| | | | | | 126 | | | | | | | | | |

**Note 1**: Start and Stop Dates with interim redispatch are determined based on customers choosing option to pursue redispatch to start service at Requested Start and Stop Dates or earliest date possible.

**Note 2:** Start dates with and without redispatch are based on the assumed completion dates of previous Aggregate Transmission Service Studies currently being conducted. Actual start dates may differ from the potential start dates upon completion of the previous studies.

**Note 3**: Request is unable to be deferred due to fixed stop dates.

**Note 4**: Transmission customer did not select "remain in the study using interim redispatch" option.

**Note 5:** Request paramaters have been exceeded.

## Table 2 - Total Revenue Requirements Associated with Long-Term Transmission Service Requests

| Customer | Study Number | Reservation | Engineering and Construction Cost of Upgrades Allocated to Customer for Revenue Requirements | [1]Letter of Credit Amount Required (Parameter) | [2]Potential Base Plan Engineering and Construction Funding Allowable | Notes | [4]Additional Engineering and Construction Cost for 3rd Party Upgrades (Parameter) | [3 5]Total Revenue Requirements for Assigned Upgrades Over Term of Reservation WITH Potential Base Plan Funding Allocation | [6,7]Total Gross CPOs Over Reservation Period | Point-to-Point Base Rate Over Reservation Period | [4]Total Cost of Reservation Assignable to Customer Contingent Upon Base Plan Funding | Directly Assigned Upgrade Cost (DAUC) (Parameter) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APM | AG2-2016-001 | 83784194 | $43,363 | $0 | $43,363 | | $0 | $0 | $172,637 | $0 | Schedule 9 & 11 Charges | $0 |
| BRPS | AG2-2016-002 | 83796571 | $621 | $0 | $621 | | $0 | $0 | $976 | $0 | Schedule 9 & 11 Charges | $0 |
| ETEC | AG2-2016-003 | 83835435 | $109,189 | $0 | $109,189 | | $0 | $0 | $492,356 | $0 | Schedule 9 & 11 Charges | $0 |
| KMEA | AG2-2016-005 | 83795938 | $4,036 | $0 | $4,036 | | $0 | $0 | $11,012 | $0 | Schedule 9 & 11 Charges | $0 |
| KPP | AG2-2016-006 | 83796255 | $0 | $0 | $0 | | $0 | $0 | $0 | $0 | Schedule 9 & 11 Charges | $0 |
| KPP | AG2-2016-007 | 83796263 | $27,382 | $0 | $27,382 | | $0 | $0 | $121,704 | $0 | Schedule 9 & 11 Charges | $0 |
| KPP | AG2-2016-008 | 83796275 | $2,123 | $0 | $2,123 | | $0 | $0 | $10,093 | $0 | Schedule 9 & 11 Charges | $0 |
| KPP | AG2-2016-009 | 83796278 | $7,783 | $0 | $7,783 | | $0 | $0 | $36,026 | $0 | Schedule 9 & 11 Charges | $0 |
| MEUC | AG2-2016-010 | 83626579 | $0 | $0 | $0 | | $0 | $0 | $0 | $4,502,978 | $4,502,978 | $0 |
| MEUC | AG2-2016-011 | 83835653 | $0 | $0 | $0 | | $0 | $0 | $0 | $4,502,978 | $4,502,978 | $0 |
| MOWR | AG2-2016-012 | 83507637 | $0 | $0 | $0 | | $0 | $0 | $0 | $0 | Schedule 9 & 11 Charges | $0 |
| OGE | AG2-2016-013 | 83674448 | $2,345 | $0 | $2,345 | 8 | $0 | $0 | $20,783 | $0 | Schedule 9 & 11 Charges | $0 |
| OGE | AG2-2016-014 | 83674456 | $2,014 | $0 | $2,014 | 8 | $0 | $0 | $17,849 | $0 | Schedule 9 & 11 Charges | $0 |
| OGE | AG2-2016-015 | 83674479 | $2,014 | $0 | $2,014 | 8 | $0 | $0 | $17,849 | $0 | Schedule 9 & 11 Charges | $0 |
| OGE | AG2-2016-016 | 83674483 | $2,014 | $0 | $2,014 | 8 | $0 | $0 | $17,849 | $0 | Schedule 9 & 11 Charges | $0 |
| OGE | AG2-2016-017 | 83674491 | $2,014 | $0 | $2,014 | 8 | $0 | $0 | $17,849 | $0 | Schedule 9 & 11 Charges | $0 |
| OGE | AG2-2016-018 | 83674495 | $2,014 | $0 | $2,014 | 8 | $0 | $0 | $17,849 | $0 | Schedule 9 & 11 Charges | $0 |
| OGE | AG2-2016-019 | 83833583 | $2,014 | $0 | $2,014 | 8 | $0 | $0 | $17,849 | $0 | Schedule 9 & 11 Charges | $0 |
| OGE | AG2-2016-020 | 83835408 | $0 | $0 | $0 | 8 | $0 | $0 | $0 | $0 | Schedule 9 & 11 Charges | $0 |
| OTPW | AG2-2016-021 | 83837043 | $0 | $0 | $0 | | $0 | $0 | $0 | $0 | Schedule 9 & 11 Charges | $0 |
| OTPW | AG2-2016-022 | 83837158 | $0 | $0 | $0 | | $0 | $0 | $0 | $0 | Schedule 9 & 11 Charges | $0 |
| PEC | AG2-2016-023 | 83835426 | $435,323 | $0 | $435,323 | | $0 | $0 | $672,877 | $0 | Schedule 9 & 11 Charges | $0 |
| PEC | AG2-2016-024 | 83835487 | $374,108 | $0 | $374,108 | | $0 | $0 | $1,430,792 | $0 | Schedule 9 & 11 Charges | $0 |
| PEC | AG2-2016-025 | 83835507 | $0 | $0 | $0 | | $0 | $0 | $0 | $0 | Schedule 9 & 11 Charges | $0 |
| PEC | AG2-2016-026 | 83835540 | $0 | $0 | $0 | | $0 | $0 | $0 | $0 | Schedule 9 & 11 Charges | $0 |
| PEC | AG2-2016-027 | 83835602 | $0 | $0 | $0 | | $0 | $0 | $0 | $0 | Schedule 9 & 11 Charges | $0 |
| RPGI | AG2-2016-028 | 83751511 | $18,795 | $18,795 | $0 | | $0 | $0 | $54,621 | $0 | Schedule 9 & 11 Charges | $18,795 |
| WRGS | AG2-2016-029 | 83823834 | $1,668,038 | $65,328 | $1,602,711 | | $0 | $0 | $2,069,039 | $0 | Schedule 9 & 11 Charges | $65,328 |
| WRGS | AG2-2016-031 | 83823856 | $1,446,531 | $1,381,747 | $64,785 | | $0 | $0 | $2,743,819 | $0 | Schedule 9 & 11 Charges | $1,381,747 |
| **Grand Total** | | | **$4,151,723** | | **$2,685,853** | | **$0** | **$0** | **$7,943,827** | | | **$1,465,870** |

### Requests with Study Parameters Exceeded

| Customer | Study Number | Reservation | Engineering and Construction Cost of Upgrades Allocated to Customer for Revenue Requirements | [1]Letter of Credit Amount Required (Parameter) | [2]Potential Base Plan Engineering and Construction Funding Allowable | Notes | [4]Additional Engineering and Construction Cost for 3rd Party Upgrades (Parameter) | [3 5]Total Revenue Requirements for Assigned Upgrades Over Term of Reservation WITH Potential Base Plan Funding Allocation | [6,7]Total Gross CPOs Over Reservation Period | Point-to-Point Base Rate Over Reservation Period | [4]Total Cost of Reservation Assignable to Customer Contingent Upon Base Plan Funding | Directly Assigned Upgrade Cost (DAUC) (Parameter) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KCPS | AG2-2016-004 | 83674359 | $1,992,498 | $1,992,498 | $0 | | $0 | $0 | $3,893,900 | $0 | Schedule 9 & 11 Charges | $ 1,992,498 |
| WRGS | AG2-2016-030 | 83823850 | $2,139,463 | $2,110,486 | $28,977 | | $0 | $0 | $2,683,297 | $0 | Schedule 9 & 11 Charges | $ 2,110,486 |
| WRGS | AG2-2016-032 | 83823860 | $7,744,191 | $7,691,822 | $52,369 | | $0 | $0 | $9,214,292 | $0 | Schedule 9 & 11 Charges | $ 7,691,822 |
| **Grand Total** | | | **$11,876,151** | | **$81,345** | | | **$0** | | | | **$ 11,794,806** |

**Table 2 - Total Revenue Requirements Associated with Long-Term Transmission Service Requests**

| |
|---|
| **Note 1:** Letter of Credit required for financial security for transmission owner for network upgrades is determined by allocated engineering and construction costs less engineering and construction costs for upgrades when network customer is the transmission owner less the E & C allocation of expedited projects. Letter of Credit is required for upgrades assigned to PTP requests. The amount of the letter of credit will be adjusted down on an annual basis to reflect cost recovery based on revenue allocation. This letter of credit is not required for those facilities that are fully base plan funded. The Letter Of Credit Amount listed is based on meeting OATT Attachment J requirements for base plan funding. |
| **Note 2:** If potential base plan funding is applicable, this value is the lesser of the Engineering and Construction costs of assignable upgrades or the value of base plan funding calculated pursuant to Attachment J, Section III B criteria. Allocation of base plan funding is contingent upon verification of customer agreements meeting Attachment J, Section II B criteria. Not applicable if Point-to-Point base rate exceeds revenue requirements. |
| **Note 3:** Revenue Requirements (RR) are based upon deferred end dates if applicable. Deferred dates are based upon customer's choice to pursue redispatch. Achievable Base Plan Avoided RR in the case of a Base Plan upgrade being displaced or deferred by an earlier in service date for a Requested Upgrade shall be determined per Attachment J, Section VII.C methodology. Assumption of a 40 year service life is utilized for Base Plan funded projects. A present worth analysis of RR on a common year basis between the Base Plan and Requested Upgrades was performed to determine avoided Base Plan RR due to the displacement or deferral of the Base Plan upgrade by the Requested Upgrade. The incremental increase in present worth of a Requested Upgrade on a common year basis as a Base Plan upgrade is assigned to the transmission requests impacting the upgrade based on the displacement or deferral. If the displacement analysis results in lower RR due to the shorter amortization period of the requested upgrade when compared to a base plan amortization period, then no direct assignment of the upgrade cost is made due to the displacement to an earlier start date. |
| **Note 4:** For Point-to-Point requests, total cost is based on the higher of the base rate or assigned upgrade revenue requirements. For Network requests, the total cost is based on the assigned upgrade revenue requirement. Allocation of base plan funding will be determined after verification of designated resource meeting Attachment J, Section II B Criteria. Additionally E & C of 3rd Party upgrades is assignable to Customer. This includes prepayments required for any SWPA upgrades. Revenue requirements for 3rd Party facilities are not calculated. Total cost to customer is based on assumption of Revenue Requirements with confirmation of base plan funding. Customer is responsible for negotiating redispatch costs if applicable. Customer is also responsible to pay credits for previously assigned upgrades that are impacted by their request. Credits can be paid from base plan funding if applicable. |
| **Note 5:** RR with base plan funding may increase or decrease even if no base plan funding is applicable to a particular request if another request that shares the upgrade is now full base plan funded resulting in a different amortization period for the upgrade and thus different RR. |
| **Note 6:** RR for creditable upgrades. |
| **Note 7:** CPOs may be calculated based on estimated upgrade cost and are subject to change. |
| **Note 8:** CPOs for creditable upgrade(s) may be required based on completion of GI review. |

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| APM | AG2-2016-001 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APM | 83784194 | AECI | CSWS | 13 | 6/1/2017 | 6/1/2027 | 6/1/2017 | 6/1/2027 | $ 43,363 | $ - | $ 43,363 | $ 172,637 |
| | | | | | | | | | $ 43,363 | $ - | $ 43,363 | $ 172,637 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83784194 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|
| 83784194 | HUGO - VALLIANT 345KV CKT 1 | 6/8/2012 | 6/8/2012 | | | $ 13,581 | $ 65,044 |
| | Kingfisher Co Tap - Mathewson 345kV CKT 1 | 3/1/2018 | 3/1/2018 | | | $ 1,004 | $ 1,164 |
| | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ 18,369 | $ 85,386 |
| | TURK 138/115KV TRANSFORMER CKT 1 | 12/1/2011 | 12/1/2011 | | | $ 1,955 | $ 2,744 |
| | Valliant 345 kV (AEP) | 4/17/2012 | 4/17/2012 | | | $ 3,743 | $ 12,696 |
| | Woodward EHV 138kV Phase Shifting Transformer circuit #1 | 6/1/2017 | 6/1/2017 | | | $ 4,711 | $ 5,603 |
| | | | | | Total | $ 43,363 | $ 172,637 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| BRPS | AG2-2016-002 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BRPS | 83796571 | WAUE | NPPD | 7 | 1/1/2018 | 1/1/2048 | 1/1/2018 | 1/1/2048 | $ 621 | $ - | $ 621 | $ 976 |
| | | | | | | | | | $ 621 | $ - | $ 621 | $ 976 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83796571 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83796571 | SUB 3456 - SUB 3458 NEB CTY 345KV CKT 1 | 6/1/2021 | 6/1/2021 | | |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|
| 83796571 | Twin Church - Dixon County 230kV Line Upgrade | 11/1/2018 | 11/1/2018 | | | $ 621 | $ 976 |
| | | | | | Total | $ 621 | $ 976 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| ETEC | AG2-2016-003 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ETEC | 83835435 | CSWS | CSWS | 40 | 1/1/2018 | 10/1/2040 | 1/1/2018 | 10/1/2040 | $ 109,189 | $ - | $ 109,189 | $ 492,356 |
| | | | | | | | | | $ 109,189 | $ - | $ 109,189 | $ 492,356 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83835435 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83835435 | Broken Arrow North - Lynn Lane East 138kV Ckt 1 Rebuild | 6/1/2021 | 6/1/2021 | 1/1/2020 | |
| | HANCOCK - MUSKOGEE 161KV CKT 1 | 6/1/2018 | 6/1/2018 | | |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|
| 83835435 | HUGO - VALLIANT 345KV CKT 1 | 6/8/2012 | 6/8/2012 | | | $ 32,379 | $ 246,557 |
| | Kingfisher Co Tap - Mathewson 345kV CKT 1 | 3/1/2018 | 3/1/2018 | | | $ 248 | $ 358 |
| | LACYGNE - WEST GARDNER 345KV CKT 1 | 6/1/2006 | 6/1/2006 | | | $ 4,548 | $ 54,870 |
| | MCNAB REC - Turk 115KV CKT 1 #2 (AEP) | 12/1/2011 | 12/1/2011 | | | $ 46,701 | $ 80,674 |
| | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ 5,908 | $ 44,008 |
| | TURK 138/115KV TRANSFORMER CKT 1 | 12/1/2011 | 12/1/2011 | | | $ 10,460 | $ 18,070 |
| | Valliant 345 kV (AEP) | 4/17/2012 | 4/17/2012 | | | $ 8,944 | $ 47,819 |
| | | | | | Total | $ 109,189 | $ 492,356 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| KMEA | AG2-2016-005 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KMEA | 83795938 | SPA | WR | 1 | 6/1/2017 | 6/1/2027 | 6/1/2017 | 6/1/2027 | $ 4,036 | $ - | $ 4,036 | $ 11,012 |
| | | | | | | | | | $ 4,036 | $ - | $ 4,036 | $ 11,012 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Base Plan Funding for Wind | Directly Assigned for Wind | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|---|---|
| 83795938 | None | | | | | $ - | $ - | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - | $ - | $ - |

Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83795938 | Multi - Viola 345/138kV Transformer and 138 kV Lines to Clearwater and Gill | 6/1/2017 | 12/31/2018 | | |

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83795938 | HOYT - JEFFREY ENERGY CENTER 345KV CKT 1 | 6/1/2018 | 6/1/2020 | | |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Base Plan Funding for Wind | Directly Assigned for Wind | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|---|
| 83795938 | FLATRDG3 - HARPER 138KV CKT 1 | 6/20/2013 | 6/20/2013 | | | $ 407 | $ - | $ 407 | $ 1,945 |
| | FLATRDG3 - MEDICINE LODGE 138KV CKT 1 | 1/20/2014 | 1/20/2014 | | | $ 99 | $ - | $ 99 | $ 445 |
| | LACYGNE - WEST GARDNER 345KV CKT 1 | 6/1/2006 | 6/1/2006 | | | $ 69 | $ - | $ 69 | $ 511 |
| | MEDICINE LODGE - PRATT 115KV CKT 1 | 5/16/2014 | 5/16/2014 | | | $ 321 | $ - | $ 321 | $ 1,393 |
| | MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 | 2/1/2013 | 2/1/2013 | | | $ 31 | $ - | $ 31 | $ 156 |
| | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ 652 | $ - | $ 652 | $ 3,030 |
| | Rice - Lyons 115 kV Ckt 1 | 4/1/2013 | 4/1/2013 | | | $ 1,277 | $ - | $ 1,277 | $ 1,717 |
| | Rice County 230/115 kV transformer Ckt 1 | 10/1/2012 | 10/1/2012 | | | $ 730 | $ - | $ 730 | $ 998 |
| | SUB 110 - ORONOGO JCT. - SUB 452 - RIVERTON 161KV CKT 1 | 6/1/2011 | 6/1/2011 | | | $ 86 | $ - | $ 86 | $ 323 |
| | Wheatland 115 kV #2 | 12/31/2012 | 12/31/2012 | | | $ 364 | $ - | $ 364 | $ 493 |
| | | | | | Total | $ 4,036 | $ - | $ 4,036 | $ 11,012 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| KPP | AG2-2016-006 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KPP | 83796255 | NPPD | SECI | 1 | 7/1/2017 | 7/1/2027 | 7/1/2017 | 7/1/2027 | $ - | $ - | $ - | $ - |
| | | | | | | | | | $ - | $ - | $ - | $ - |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83796255 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| KPP | AG2-2016-007 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KPP | 83796263 | SECI | WR | 5 | 7/1/2017 | 7/1/2027 | 7/1/2017 | 7/1/2027 | $ 27,382 | $ - | $ 27,382 | $ 121,704 |
| | | | | | | | | | $ 27,382 | $ - | $ 27,382 | $ 121,704 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83796263 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83796263 | CITY OF WINFIELD - RAINBOW - OAK 69KV CKT 1 | 6/1/2021 | 6/1/2021 | | |
| | CRESWELL (CRSW TX-1) 138/69/13.2KV TRANSFORMER CKT 1 | 6/1/2021 | 6/1/2021 | | |
| | CRESWELL (CRSW TX-2) 138/69/13.2KV TRANSFORMER CKT 1 | 6/1/2021 | 6/1/2021 | | |
| | HOYT - JEFFREY ENERGY CENTER 345KV CKT 1 | 6/1/2018 | 6/1/2020 | | |

Planned Projects

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83796263 | Furley Tap-Towanda-Midian 69 kV | 6/1/2021 | 6/1/2021 | 1/1/2018 | |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|
| 83796263 | FLATRDG3 - HARPER 138KV CKT 1 | 6/20/2013 | 6/20/2013 | | | $ 7,784 | $ 37,513 |
| | MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 | 2/1/2013 | 2/1/2013 | | | $ 6,506 | $ 32,754 |
| | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ 10,268 | $ 48,068 |
| | Woodward EHV 138kV Phase Shifting Transformer circuit #1 | 6/1/2017 | 6/1/2017 | | | $ 2,824 | $ 3,368 |
| | | | | | Total | $ 27,382 | $ 121,704 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| KPP | AG2-2016-008 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KPP | 83796275 | WR | WR | 2 | 7/1/2017 | 7/1/2027 | 7/1/2017 | 7/1/2027 | $ 2,123 | $ - | $ 2,123 | $ 10,093 |
| | | | | | | | | | $ 2,123 | $ - | $ 2,123 | $ 10,093 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83796275 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83796275 | CITY OF WINFIELD - RAINBOW - OAK 69KV CKT 1 | 6/1/2021 | 6/1/2021 | | |
| | CRESWELL (CRSW TX-1) 138/69/13.2KV TRANSFORMER CKT 1 | 6/1/2021 | 6/1/2021 | | |
| | CRESWELL (CRSW TX-2) 138/69/13.2KV TRANSFORMER CKT 1 | 6/1/2021 | 6/1/2021 | | |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|
| 83796275 | MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 | 2/1/2013 | 2/1/2013 | | | $ 443 | $ 2,232 |
| | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ 1,679 | $ 7,861 |
| | | | | | Total | $ 2,123 | $ 10,093 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| KPP | AG2-2016-009 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KPP | 83796278 | WR | WR | 4 | 7/1/2017 | 7/1/2027 | 7/1/2017 | 7/1/2027 | $ 7,783 | $ - | $ 7,783 | $ 36,026 |
| | | | | | | | | | $ 7,783 | $ - | $ 7,783 | $ 36,026 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83796278 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83796278 | CITY OF WINFIELD - RAINBOW - OAK 69KV CKT 1 | 6/1/2021 | 6/1/2021 | | |
| | CRESWELL (CRSW TX-1) 138/69/13.2KV TRANSFORMER CKT 1 | 6/1/2021 | 6/1/2021 | | |
| | CRESWELL (CRSW TX-2) 138/69/13.2KV TRANSFORMER CKT 1 | 6/1/2021 | 6/1/2021 | | |
| | HOYT - JEFFREY ENERGY CENTER 345KV CKT 1 | 6/1/2018 | 6/1/2020 | | |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|
| 83796278 | FLATRDG3 - HARPER 138KV CKT 1 | 6/20/2013 | 6/20/2013 | | | $ 2,478 | $ 11,945 |
| | FLATRDG3 - MEDICINE LODGE 138KV CKT 1 | 1/20/2014 | 1/20/2014 | | | $ 858 | $ 3,890 |
| | MEDICINE LODGE - PRATT 115KV CKT 1 | 5/16/2014 | 5/16/2014 | | | $ 2,381 | $ 10,427 |
| | MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 | 2/1/2013 | 2/1/2013 | | | $ 271 | $ 1,363 |
| | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ 1,795 | $ 8,401 |
| | | | | | Total | $ 7,783 | $ 36,026 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| MEUC | AG2-2016-010 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEUC | 83626579 | MPS | AECI | 25 | 6/1/2017 | 6/1/2022 | 6/1/2017 | 6/1/2022 | $ - | $ 4,502,978 | $ - | $ - |
| | | | | | | | | | $ - | $ 4,502,978 | $ - | $ - |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83626579 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83626579 | SUB 3456 - SUB 3458 NEB CTY 345KV CKT 1 | 6/1/2021 | 6/1/2021 | | |

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| MEUC | AG2-2016-011 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEUC | 83835653 | MPS | AECI | 25 | 6/1/2018 | 6/1/2023 | 6/1/2018 | 6/1/2023 | $ - | $ 4,502,978 | $ - | $ - |
| | | | | | | | | | $ - | $ 4,502,978 | $ - | $ - |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83835653 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83835653 | SUB 3456 - SUB 3458 NEB CTY 345KV CKT 1 | 6/1/2021 | 6/1/2021 | | |

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| MOWR | AG2-2016-012 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MOWR | 83507637 | KCPL | MPS | 18 | 6/1/2017 | 6/1/2022 | 6/1/2017 | 6/1/2022 | $ - | $ - | $ - | $ - |
| | | | | | | | | | $ - | $ - | $ - | $ - |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83507637 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83507637 | SUB 3456 - SUB 3458 NEB CTY 345KV CKT 1 | 6/1/2021 | 6/1/2021 | | |

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| OGE | AG2-2016-013 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OGE | 83674448 | OKGE | OKGE | 57 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | $ 2,345 | $ - | $ 2,345 | $ 20,783 |
| | | | | | | | | | $ 2,345 | $ - | $ 2,345 | $ 20,783 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83674448 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|
| 83674448 | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ 2,345 | $ 20,783 |
| | | | | | Total | $ 2,345 | $ 20,783 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.
*Note: CPOs for creditable upgrade(s) may be required based on completion of GI review.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| OGE | AG2-2016-014 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OGE | 83674456 | OKGE | OKGE | 57 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | $ 2,014 | $ - | $ 2,014 | $ 17,849 |
| | | | | | | | | | $ 2,014 | $ - | $ 2,014 | $ 17,849 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83674456 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|
| 83674456 | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ 2,014 | $ 17,849 |
| | | | | | Total | $ 2,014 | $ 17,849 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.
*Note: CPOs for creditable upgrade(s) may be required based on completion of GI review.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| OGE | AG2-2016-015 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OGE | 83674479 | OKGE | OKGE | 57 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | $ 2,014 | $ - | $ 2,014 | $ 17,849 |
| | | | | | | | | | $ 2,014 | $ - | $ 2,014 | $ 17,849 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83674479 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|
| 83674479 | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ 2,014 | $ 17,849 |
| | | | | | Total | $ 2,014 | $ 17,849 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.
*Note: CPOs for creditable upgrade(s) may be required based on completion of GI review.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| OGE | AG2-2016-016 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OGE | 83674483 | OKGE | OKGE | 57 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | $ 2,014 | $ - | $ 2,014 | $ 17,849 |
| | | | | | | | | | $ 2,014 | $ - | $ 2,014 | $ 17,849 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83674483 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|
| 83674483 | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ 2,014 | $ 17,849 |
| | | | | | Total | $ 2,014 | $ 17,849 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.
*Note: CPOs for creditable upgrade(s) may be required based on completion of GI review.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| OGE | AG2-2016-017 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OGE | 83674491 | OKGE | OKGE | 57 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | $ 2,014 | $ - | $ 2,014 | $ 17,849 |
| | | | | | | | | | $ 2,014 | $ - | $ 2,014 | $ 17,849 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83674491 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|
| 83674491 | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ 2,014 | $ 17,849 |
| | | | | | Total | $ 2,014 | $ 17,849 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.
*Note: CPOs for creditable upgrade(s) may be required based on completion of GI review.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| OGE | AG2-2016-018 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OGE | 83674495 | OKGE | OKGE | 57 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | $ 2,014 | $ - | $ 2,014 | $ 17,849 |
| | | | | | | | | | $ 2,014 | $ - | $ 2,014 | $ 17,849 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83674495 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|
| 83674495 | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ 2,014 | $ 17,849 |
| | | | | | Total | $ 2,014 | $ 17,849 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.
*Note: CPOs for creditable upgrade(s) may be required based on completion of GI review.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| OGE | AG2-2016-019 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OGE | 83833583 | OKGE | OKGE | 49 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | $ 2,014 | $ - | $ 2,014 | $ 17,849 |
| | | | | | | | | | $ 2,014 | $ - | $ 2,014 | $ 17,849 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83833583 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|
| 83833583 | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ 2,014 | $ 17,849 |
| | | | | | Total | $ 2,014 | $ 17,849 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.
*Note: CPOs for creditable upgrade(s) may be required based on completion of GI review.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| OGE | AG2-2016-020 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OGE | 83835408 | OKGE | OKGE | 8 | 9/1/2017 | 9/1/2047 | 9/1/2017 | 9/1/2047 | $ - | $ - | $ - | $ - |
| | | | | | | | | | $ - | $ - | $ - | $ - |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83835408 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| OTPW | AG2-2016-021 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OTPW | 83837043 | OTP | WAUE | 27 | 6/1/2017 | 6/1/2022 | 6/1/2017 | 6/1/2022 | $ - | $ - | $ - | $ - |
| | | | | | | | | | $ - | $ - | $ - | $ - |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83837043 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| OTPW | AG2-2016-022 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OTPW | 83837158 | OTP | WAUE | 16 | 6/1/2017 | 6/1/2018 | 6/1/2017 | 6/1/2018 | $ - | $ - | $ - | $ - |
| | | | | | | | | | $ - | $ - | $ - | $ - |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83837158 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| PEC | AG2-2016-023 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEC | 83835426 | WFEC | WFEC | 24 | 1/1/2018 | 1/1/2023 | 1/1/2018 | 1/1/2023 | $ 435,323 | $ - | $ 435,323 | $ 672,877 |
| | | | | | | | | | $ 435,323 | $ - | $ 435,323 | $ 672,877 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Base Plan Funding for Wind | Directly Assigned for Wind | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|---|---|
| 83835426 | None | | | | | $ - | $ - | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - | $ - | $ - |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Base Plan Funding for Wind | Directly Assigned for Wind | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|---|
| 83835426 | Gracemont 138kV line terminal addition | 10/15/2011 | 10/15/2011 | | | $ 5,978 | $ - | $ 5,978 | $ 7,960 |
| | HUGO - VALLIANT 345KV CKT 1 | 6/8/2012 | 6/8/2012 | | | $ 4,330 | $ - | $ 4,330 | $ 18,056 |
| | HUGO 345/138KV TRANSFORMER CKT 1 | 6/30/2012 | 6/30/2012 | | | $ 1,987 | $ - | $ 1,987 | $ 8,230 |
| | Lake Creek - Lone Wolf 69kV Ckt 1 Current Transformers | 8/8/2015 | 8/8/2015 | | | $ 322,584 | $ - | $ 322,584 | $ 379,353 |
| | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ 47,348 | $ - | $ 47,348 | $ 191,153 |
| | Valliant 345 kV (AEP) | 4/17/2012 | 4/17/2012 | | | $ 1,196 | $ - | $ 1,196 | $ 3,543 |
| | WASHITA - GRACEMONT 138 KV CKT 2 | 10/12/2012 | 10/12/2012 | | | $ 38,455 | $ - | $ 38,455 | $ 49,565 |
| | Woodward EHV 138kV Phase Shifting Transformer circuit #1 | 6/1/2017 | 6/1/2017 | | | $ 13,445 | $ - | $ 13,445 | $ 15,016 |
| | | | | | Total | $ 435,323 | $ - | $ 435,323 | $ 672,877 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| PEC | AG2-2016-024 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEC | 83835487 | WFEC | WFEC | 75 | 6/1/2017 | 6/1/2022 | 6/1/2018 | 6/1/2023 | $ 374,108 | $ - | $ 374,108 | $ 1,430,792 |
| | | | | | | | | | $ 374,108 | $ - | $ 374,108 | $ 1,430,792 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83835487 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Construction Pending - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83835487 | TUCO INTERCHANGE 345/230KV CKT 1 REPLACEMENT | 6/1/2017 | 6/1/2018 | | Yes |
| | Woodward EHV 138kV Phase Shifting Transformer circuit #1 | 6/1/2017 | 6/1/2017 | | |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|
| 83835487 | BROWN - EXPLORER TAP 138KV CKT 1 | 6/1/2006 | 6/1/2006 | | | $ 941 | $ 5,015 |
| | HUGO - VALLIANT 345KV CKT 1 | 6/8/2012 | 6/8/2012 | | | $ 49,118 | $ 195,104 |
| | HUGO 345/138KV TRANSFORMER CKT 1 | 6/30/2012 | 6/30/2012 | | | $ 118,203 | $ 466,270 |
| | Kingfisher Co Tap - Mathewson 345kV CKT 1 | 3/1/2018 | 3/1/2018 | | | $ 4,517 | $ 4,816 |
| | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ 187,792 | $ 721,351 |
| | Valliant 345 kV (AEP) | 4/17/2012 | 4/17/2012 | | | $ 13,536 | $ 38,236 |
| | | | | | Total | $ 374,108 | $ 1,430,792 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| PEC | AG2-2016-025 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEC | 83835507 | SPA | SPA | 27 | 6/1/2017 | 6/1/2027 | 6/1/2017 | 6/1/2027 | $ - | $ - | $ - | $ - |
| | | | | | | | | | $ - | $ - | $ - | $ - |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83835507 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
| --- | --- |
| PEC | AG2-2016-026 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PEC | 83835540 | OKGE | OKGE | 11 | 6/1/2017 | 6/1/2027 | 6/1/2017 | 6/1/2027 | $ - | $ - | $ - | $ - |
| | | | | | | | | | $ - | $ - | $ - | $ - |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 83835540 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| PEC | AG2-2016-027 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEC | 83835602 | WFEC | WFEC | 21 | 6/1/2017 | 6/1/2027 | 6/1/2017 | 6/1/2027 | $ - | $ - | $ - | $ - |
| | | | | | | | | | $ - | $ - | $ - | $ - |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83835602 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| RPGI | AG2-2016-028 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RPGI | 83751511 | AMRN | WAUE | 6 | 6/1/2017 | 6/1/2024 | 6/1/2017 | 6/1/2024 | $ - | $ - | $ 18,795 | $ 54,621 |
| | | | | | | | | | $ - | $ - | $ 18,795 | $ 54,621 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|
| 83751511 | None | | | | | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - |

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83751511 | SUB 3456 - SUB 3458 NEB CTY 345KV CKT 1 | 6/1/2021 | 6/1/2021 | | |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|
| 83751511 | Fort Randall - Madison County 230kV Ckt 1 | 12/23/2013 | 12/23/2013 | | | $ 8,083 | $ 10,130 |
| | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ 10,712 | $ 44,491 |
| | | | | | Total | $ 18,795 | $ 54,621 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| WRGS | AG2-2016-029 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WRGS | 83823834 | WR | WR | 20 | 6/1/2017 | 6/1/2022 | 6/1/2017 | 6/1/2022 | $ 1,602,711 | $ - | $ 1,668,038 | $ 2,069,039 |
| | | | | | | | | | $ 1,602,711 | $ - | $ 1,668,038 | $ 2,069,039 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Base Plan Funding for Wind | Directly Assigned for Wind | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|---|---|
| 83823834 | None | | | | | $ - | $ - | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - | $ - | $ - |

Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83823834 | Multi - Viola 345/138kV Transformer and 138 kV Lines to Clearwater and Gill | 6/1/2017 | 12/31/2018 | | |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Base Plan Funding for Wind | Directly Assigned for Wind | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|---|
| 83823834 | FLATRDG3 - HARPER 138KV CKT 1 | 6/20/2013 | 6/20/2013 | | | $ 19,398 | $ 9,554 | $ 28,953 | $ 110,149 |
| | FLATRDG3 - MEDICINE LODGE 138KV CKT 1 | 1/20/2014 | 1/20/2014 | | | $ 5,003 | $ 2,464 | $ 7,467 | $ 26,724 |
| | LACYGNE - WEST GARDNER 345KV CKT 1 | 6/1/2006 | 6/1/2006 | | | $ 4,861 | $ - | $ 4,861 | $ 29,747 |
| | MEDICINE LODGE - PRATT 115KV CKT 1 | 5/16/2014 | 5/16/2014 | | | $ 16,400 | $ 8,077 | $ 24,477 | $ 84,605 |
| | MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 | 2/1/2013 | 2/1/2013 | | | $ 1,580 | $ 778 | $ 2,358 | $ 9,368 |
| | Rice - Lyons 115 kV Ckt 1 | 4/1/2013 | 4/1/2013 | | | $ 56,901 | $ 28,026 | $ 84,926 | $ 105,692 |
| | Rice County 230/115 kV transformer Ckt 1 | 10/1/2012 | 10/1/2012 | | | $ 33,355 | $ 16,428 | $ 49,783 | $ 62,966 |
| | Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Addition (NU) | 12/31/2016 | 12/31/2016 | | | $ 2,699 | $ - | $ 2,699 | $ 2,996 |
| | Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Co Addition (NU) | 10/16/2016 | 10/16/2016 | | | $ 1,438,296 | $ - | $ 1,438,296 | $ 1,606,404 |
| | Wheatland 115 kV #2 | 12/31/2012 | 12/31/2012 | | | $ 24,220 | $ - | $ 24,220 | $ 30,388 |
| | | | | | Total | $ 1,602,711 | $ 65,328 | $ 1,668,038 | $ 2,069,039 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| WRGS | AG2-2016-031 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WRGS | 83823856 | WR | WR | 70 | 6/1/2017 | 6/1/2022 | 6/1/2017 | 6/1/2022 | $ 64,785 | $ - | $ 1,446,531 | $ 2,743,819 |
| | | | | | | | | | $ 64,785 | $ - | $ 1,446,531 | $ 2,743,819 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Base Plan Funding for Wind | Directly Assigned for Wind | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|---|---|
| 83823856 | None | | | | | $ - | $ - | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - | $ - | $ - |

Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83823856 | Multi - Viola 345/138kV Transformer and 138 kV Lines to Clearwater and Gill | 6/1/2017 | 12/31/2018 | | |

Construction Pending - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83823856 | Woodward EHV 138kV Phase Shifting Transformer circuit #1 | 6/1/2017 | 6/1/2017 | | |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Base Plan Funding for Wind | Directly Assigned for Wind | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|---|
| 83823856 | FLATRDG3 - HARPER 138KV CKT 1 | 6/20/2013 | 6/20/2013 | | | $ - | $ 77,210 | $ 77,210 | $ 293,743 |
| | Ironwood 345 kV Substation Ford Co Addition | 12/17/2014 | 12/17/2014 | | | $ - | $ 477,043 | $ 477,043 | $ 560,993 |
| | LACYGNE - WEST GARDNER 345KV CKT 1 | 6/1/2006 | 6/1/2006 | | | $ - | $ 21,922 | $ 21,922 | $ 134,159 |
| | MEDICINE LODGE - PRATT 115KV CKT 1 | 5/16/2014 | 5/16/2014 | | | $ - | $ 74,285 | $ 74,285 | $ 256,765 |
| | MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 | 2/1/2013 | 2/1/2013 | | | $ - | $ 7,340 | $ 7,340 | $ 29,169 |
| | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ - | $ 189,126 | $ 189,126 | $ 726,475 |
| | Rice - Lyons 115 kV Ckt 1 | 4/1/2013 | 4/1/2013 | | | $ - | $ 319,742 | $ 319,742 | $ 397,924 |
| | Rice County 230/115 kV transformer Ckt 1 | 10/1/2012 | 10/1/2012 | | | $ - | $ 163,875 | $ 163,875 | $ 207,273 |
| | Wheatland 115 kV #2 | 12/31/2012 | 12/31/2012 | | | $ 64,785 | $ - | $ 64,785 | $ 81,281 |
| | Woodward EHV 138kV Phase Shifting Transformer circuit #1 | 6/1/2017 | 6/1/2017 | | | $ - | $ 51,203 | $ 51,203 | $ 56,037 |
| | | | | | Total | $ 64,785 | $ 1,381,747 | $ 1,446,531 | $ 2,743,819 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

## Requests with Study Parameters Exceeded

| Customer | Study Number |
|---|---|
| KCPS | AG2-2016-004 |

| Customer | Reservation | POR | POD | Requested Amount | Requested Start Date | Requested Stop Date | Deferred Start Date Without Redispatch | Deferred Stop Date Without Redispatch | Potential Base Plan Funding Allowable | Point-to-Point Base Rate | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KCPS | 83674359 | WPEK | KCPL | 50 | 6/1/2017 | 11/30/2031 | 6/1/2020 | 11/30/2031 | $ - | $ - | $ 1,992,498 | $ 3,893,900 |
| | | | | | | | | | $ - | $ - | $ 1,992,498 | $ 3,893,900 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Base Plan Funding for Wind | Directly Assigned for Wind | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|---|---|
| 83674359 | None | | | | | $ - | $ - | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - | $ - | $ - |



Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83674359 | HOYT - JEFFREY ENERGY CENTER 345KV CKT 1 | 6/1/2017 | 6/1/2020 | | |

Construction Pending - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83674359 | Woodward EHV 138kV Phase Shifting Transformer circuit #1 | 6/1/2017 | 6/1/2017 | | |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Base Plan Funding for Wind | Directly Assigned for Wind | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|---|
| 83674359 | FLATRDG3 - HARPER 138KV CKT 1 | 6/20/2013 | 6/20/2013 | | | $ - | $ 18,758 | $ 18,758 | $ 147,327 |
| | Ft. Dodge - North Ft. Dodge 115 kV Ckt 2 | 5/22/2015 | 5/22/2015 | | | $ - | $ 277,225 | $ 277,225 | $ 409,520 |
| | LACYGNE - WEST GARDNER 345KV CKT 1 | 6/1/2006 | 6/1/2006 | | | $ - | $ 13,000 | $ 13,000 | $ 147,918 |
| | MEDICINE LODGE - PRATT 115KV CKT 1 | 5/16/2014 | 5/16/2014 | | | $ - | $ 1,440 | $ 1,440 | $ 10,278 |
| | MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 | 2/1/2013 | 2/1/2013 | | | $ - | $ 11,487 | $ 11,487 | $ 94,242 |
| | North Ft. Dodge - Spearville 115kV Ckt 2 | 5/22/2015 | 5/22/2015 | | | $ - | $ 570,401 | $ 570,401 | $ 842,603 |
| | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ - | $ 111,702 | $ 111,702 | $ 784,135 |
| | Spearville 345/115 kV Transformer CKT 1 | 5/22/2015 | 5/22/2015 | | | $ - | $ 948,848 | $ 948,848 | $ 1,401,651 |
| | Woodward EHV 138kV Phase Shifting Transformer circuit #1 | 6/1/2017 | 6/1/2017 | | | $ - | $ 39,637 | $ 39,637 | $ 56,225 |
| | | | | | Total | $ - | $ 1,992,498 | $ 1,992,498 | $ 3,893,900 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| WRGS | AG2-2016-030 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WRGS | 83823850 | WR | WR | 26 | 6/1/2017 | 6/1/2022 | 12/31/2018 | 12/31/2023 | $ 28,977 | $ - | $ 2,139,463 | $ 2,683,297 |
| | | | | | | | | | $ 28,977 | $ - | $ 2,139,463 | $ 2,683,297 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Base Plan Funding for Wind | Directly Assigned for Wind | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|---|---|
| 83823850 | None | | | | | $ - | $ - | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - | $ - | $ - |

Parameters Exceeded

Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83823850 | Multi - Viola 345/138kV Transformer and 138 kV Lines to Clearwater and Gill | 6/1/2017 | 12/31/2018 | | Yes |

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83823850 | HOYT - JEFFREY ENERGY CENTER 345KV CKT 1 | 6/1/2017 | 6/1/2020 | | |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Base Plan Funding for Wind | Directly Assigned for Wind | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|---|
| 83823850 | FLATRDG3 - HARPER 138KV CKT 1 | 6/20/2013 | 6/20/2013 | | | $ - | $ 33,582 | $ 33,582 | $ 127,763 |
| | FLATRDG3 - MEDICINE LODGE 138KV CKT 1 | 1/20/2014 | 1/20/2014 | | | $ - | $ 10,562 | $ 10,562 | $ 37,805 |
| | LACYGNE - WEST GARDNER 345KV CKT 1 | 6/1/2006 | 6/1/2006 | | | $ - | $ 6,157 | $ 6,157 | $ 37,679 |
| | MEDICINE LODGE - PRATT 115KV CKT 1 | 5/16/2014 | 5/16/2014 | | | $ - | $ 30,481 | $ 30,481 | $ 105,358 |
| | MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 | 2/1/2013 | 2/1/2013 | | | $ - | $ 3,409 | $ 3,409 | $ 13,549 |
| | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ - | $ 15,831 | $ 15,831 | $ 60,812 |
| | Rice - Lyons 115 kV Ckt 1 | 4/1/2013 | 4/1/2013 | | | $ - | $ 89,301 | $ 89,301 | $ 111,137 |
| | Rice County 230/115 kV transformer Ckt 1 | 10/1/2012 | 10/1/2012 | | | $ - | $ 51,646 | $ 51,646 | $ 65,323 |
| | Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Co Addition (NU) | 10/16/2016 | 10/16/2016 | | | $ - | $ 1,869,515 | $ 1,869,515 | $ 2,088,023 |
| | Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Addition (NU) | 10/16/2016 | 10/16/2016 | | | $ 3,509 | $ - | $ 3,509 | $ 3,896 |
| | Wheatland 115 kV #2 | 12/31/2012 | 12/31/2012 | | | $ 25,468 | $ - | $ 25,468 | $ 31,953 |
| | | | | | Total | $ 28,977 | $ 2,110,486 | $ 2,139,463 | $ 2,683,297 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

**Table 3 - Additional Details for Each Request Including All Facility Upgrades Required and Allocated Costs for Each Upgrade**

| **Customer** | **Study Number** |
|---|---|
| WRGS | AG2-2016-032 |

| **Customer** | **Reservation** | **POR** | **POD** | **Requested Amount** | **Requested Start Date** | **Requested Stop Date** | **Deferred Start Date Without Redispatch** | **Deferred Stop Date Without Redispatch** | **Potential Base Plan Funding Allowable** | **Point-to-Point Base Rate** | **Allocated E & C Cost** | **Total Revenue Requirements** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WRGS | 83823860 | WR | WR | 50 | 6/1/2017 | 6/1/2022 | 6/1/2020 | 6/1/2025 | $ 52,369 | $ - | $ 7,744,191 | $ 9,214,292 |
| | | | | | | | | | $ 52,369 | $ - | $ 7,744,191 | $ 9,214,292 |

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Base Plan Funding for Wind | Directly Assigned for Wind | Allocated E & C Cost | Total E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|---|---|
| 83823860 | None | | | | | $ - | $ - | $ - | $ - | $ - |
| | | | | | Total | $ - | $ - | $ - | $ - | $ - |



Expansion Plan - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83823860 | Multi - Viola 345/138kV Transformer and 138 kV Lines to Clearwater and Gill | 6/1/2017 | 12/31/2018 | | Yes |

Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available |
|---|---|---|---|---|---|
| 83823860 | HOYT - JEFFREY ENERGY CENTER 345KV CKT 1 | 6/1/2017 | 6/1/2020 | | Yes |

Credits may be required for the following Network Upgrades in accordance with Attachment Z2 of the SPP OATT.

| Reservation | Upgrade Name | DUN | EOC | Earliest Start Date | Redispatch Available | Base Plan Funding for Wind | Directly Assigned for Wind | Allocated E & C Cost | Total Revenue Requirements |
|---|---|---|---|---|---|---|---|---|---|
| 83823860 | FLATRDG3 - HARPER 138KV CKT 1 | 6/20/2013 | 6/20/2013 | | | $ - | $ 64,581 | $ 64,581 | $ 245,695 |
| | FLATRDG3 - MEDICINE LODGE 138KV CKT 1 | 1/20/2014 | 1/20/2014 | | | $ - | $ 20,312 | $ 20,312 | $ 72,700 |
| | LACYGNE - WEST GARDNER 345KV CKT 1 | 6/1/2006 | 6/1/2006 | | | $ - | $ 11,840 | $ 11,840 | $ 72,458 |
| | MEDICINE LODGE - PRATT 115KV CKT 1 | 5/16/2014 | 5/16/2014 | | | $ - | $ 58,613 | $ 58,613 | $ 202,597 |
| | MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 | 2/1/2013 | 2/1/2013 | | | $ - | $ 6,556 | $ 6,556 | $ 26,055 |
| | NORTHWEST - WOODWARD 345KV CKT 1 | 3/30/2010 | 3/30/2010 | | | $ - | $ 30,446 | $ 30,446 | $ 116,948 |
| | Rice - Lyons 115 kV Ckt 1 | 4/1/2013 | 4/1/2013 | | | $ - | $ 171,734 | $ 171,734 | $ 213,725 |
| | Rice County 230/115 kV transformer Ckt 1 | 10/1/2012 | 10/1/2012 | | | $ - | $ 99,316 | $ 99,316 | $ 125,618 |
| | Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Co Addition (NU) | 10/16/2016 | 10/16/2016 | | | $ - | $ 7,228,424 | $ 7,228,424 | $ 8,073,281 |
| | Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Addition (NU) | 10/16/2016 | 10/16/2016 | | | $ 3,391 | $ - | $ 3,391 | $ 3,766 |
| | Wheatland 115 kV #2 | 12/31/2012 | 12/31/2012 | | | $ 48,977 | $ - | $ 48,977 | $ 61,448 |
| | | | | | Total | $ 52,369 | $ 7,691,822 | $ 7,744,191 | $ 9,214,292 |

*Note: CPOs may be calculated based on estimated upgrade cost and are subject to change.

## Table 4 - Upgrade Requirements and Solutions Needed to Provide Transmission Service for the Aggregate Study

**Construction Pending Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.**

| Transmission Owner | Upgrade | Solution | Earliest Date Upgrade Required (DUN) | Estimated Date of Upgrade Completion (EOC) |
|---|---|---|---|---|
| OKGE | Woodward EHV 138kV Phase Shifting Transformer circuit #1 | Install one (1) 138 kV phase shifting transformer along with upgrading relay, protective, and metering equipment, and all associated and miscellaneous materials. | 6/1/2017 | 6/1/2017 |
| SPS | TUCO INTERCHANGE 345/230KV CKT 1 REPLACEMENT | The existing 345/230kV 560/560MVA autotransformer at Tuco Substation will be replaced with a new transformer unit to match the other transformer at this site. The new transformer can be installed at Tuco Substation by removing the existing transformer fro | 6/1/2017 | 6/1/2018 |

**Planned Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.**

| Transmission Owner | Upgrade | Solution | Earliest Date Upgrade Required (DUN) | Estimated Date of Upgrade Completion (EOC) |
|---|---|---|---|---|
| WERE | Furley Tap-Towanda-Midian 69 kV | Rebuild of 15.5 miles from Furley Tap- Towanda- Midian 69kV | 6/1/2021 | 6/1/2021 |

**Expansion Plan Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.**

| Transmission Owner | Upgrade | Solution | Earliest Date Upgrade Required (DUN) | Estimated Date of Upgrade Completion (EOC) |
|---|---|---|---|---|
| WERE | Multi - Viola 345/138kV Transformer and 138 kV Lines to Clearwater and Gill | Install 345/138 kV transformer at future Viola 345 kV substation. Build 138kV line from Viola to Clearwater substation. Build 138 kV line from Viola to Gill substation | 6/1/2017 | 12/31/2018 |

## Table 4 - Upgrade Requirements and Solutions Needed to Provide Transmission Service for the Aggregate Study

**Reliability Projects - The requested service is contingent upon completion of the following upgrades. Cost is not assignable to the transmission customer.**

| Transmission Owner | Upgrade | Solution | Earliest Date Upgrade Required (DUN) | Estimated Date of Upgrade Completion (EOC) |
|---|---|---|---|---|
| AEPW | Broken Arrow North - Lynn Lane East 138kV Ckt 1 Rebuild | Rebuild Broken Arrow - Lynn Lane East 7.2 mile 138 kV line | 6/1/2021 | 6/1/2021 |
| OKGE | HANCOCK - MUSKOGEE 161KV CKT 1 | Replace wavetrap at Muskogee. | 6/1/2018 | 6/1/2018 |
| OPPD | SUB 3456 - SUB 3458 NEB CTY 345KV CKT 1 | Replace 345kV disconnect and perform protection system changes at S3456. | 6/1/2021 | 6/1/2021 |
| WERE | CITY OF WINFIELD - RAINBOW - OAK 69KV CKT 1 | Reconductor 9.1 miles of 69kV transmission line from City of Winfield to Oak. | 6/1/2021 | 6/1/2021 |
| WERE | CRESWELL (CRSW TX-1) 138/69/13.2KV TRANSFORMER CKT 1 | Upgrade Creswell (CRSW TX-1) 13/69/13.2 transformer to 150/165 MVA. | 6/1/2021 | 6/1/2021 |
| WERE | CRESWELL (CRSW TX-2) 138/69/13.2KV TRANSFORMER CKT 1 | Upgrade Creswell (CRSW TX-2) 13/69/13.2 transformer to 150/165 MVA. | 6/1/2021 | 6/1/2021 |
| WERE | HOYT - JEFFREY ENERGY CENTER 345KV CKT 1 | Rebuild 24.3 miles of line. | 6/1/2018 | 6/1/2020 |

## Table 4 - Upgrade Requirements and Solutions Needed to Provide Transmission Service for the Aggregate Study

**Network Upgrades requiring credits per Attachment Z2 of the SPP OATT.**

| Transmission Owner | Upgrade | Solution | Earliest Date Upgrade Required (DUN) | Estimated Date of Upgrade Completion (EOC) | Total Gross CPO Allocation |
|---|---|---|---|---|---|
| CSWS | MCNAB REC - Turk 115KV CKT 1 #2 (AEP) | Build a new two mile, 138kV, 1590 ACSR line section (operated at 115kV) from Turk Substation to the existing Okay-Hope 115kV line to form a Turk - Hope 115kV line. | 12/1/2011 | 12/1/2011 | $80,674 |
| CSWS | TURK 138/115KV TRANSFORMER CKT 1 | Build Turk 138-115 kV station and relocate autotransformer (and spare) from Patterson to this new Turk station | 12/1/2011 | 12/1/2011 | $20,814 |
| CSWS | Valliant 345 kV (AEP) | Install 345 kV terminal equipment at Valliant substation. | 4/17/2012 | 4/17/2012 | $102,293 |
| EDE | SUB 110 - ORONOGO JCT. - SUB 452 - RIVERTON 161KV CKT 1 | Reconductor 11.9 miles of Oronogo Jct. to Riverton 161kV Ckt. 1 from 556 ACSR to 795 ACSR, change CT settings @ Oronogo, and replace wavetrap. | 6/1/2011 | 6/1/2011 | $323 |
| ITCM | HUGO - VALLIANT 345KV CKT 1 | Install new line from Valliant 345 kV to Hugo Power Plant with 19 miles of bundled 1590 ACSR conductior. | 1/0/1900 | 1/0/1900 | $524,762 |
| ITCM | HUGO 345/138KV TRANSFORMER CKT 1 | Install new line from Valliant 345 kV to Hugo Power Plant with 19 miles of bundled 1590 ACSR conductior. Note that ITC is building the line from Valiant to Hugo. | 1/0/1900 | 1/0/1900 | $474,500 |
| ITCM | Ironwood 345 kV Substation Ford Co Addition | Add one (1) 345kV line terminal including two (2) 345kV circuit breakers, four (4) 345kV disconnect switches, and associated structural steel, foundations, and associated miscellaneous equipment. Contribution by Interconnection Customer towards construction of Transmission Owner 345kV substation in addition to the cost of a new line terminal including one (1) 345kV circuit breaker, four (4) 345kV disconnect switches, and associated structural steel, foundations, and associated miscellaneous equipment | 12/17/2014 | 12/17/2014 | $560,993 |
| KCPL | LACYGNE - WEST GARDNER 345KV CKT 1 | KCPL Sponsored Project to Reconductor Line to be In-Service by 6/1/2006 | 6/1/2006 | 6/1/2006 | $219,288 |
| MIDW | Rice - Lyons 115 kV Ckt 1 | Rebuild and extend 115 kV transmission line from existing Rice Co. substation to new Rice Co. substation, including engineering, surveying, and modification of existing easements as required. | 4/1/2013 | 4/1/2013 | $505,334 |
| MIDW | Rice County 230/115 kV transformer Ckt 1 | Install 230/115 kV transformer at Rice County. | 10/1/2012 | 10/1/2012 | $271,238 |
| MIDW | Wheatland 115 kV #2 | Install metering equipment at the Wheatland 115 kV substation. | 12/31/2012 | 12/31/2012 | $112,162 |
| MKEC | FLATRDG3 - HARPER 138KV CKT 1 | Rebuild 24.15 mile line | 1/0/1900 | 1/0/1900 | $455,294 |
| MKEC | FLATRDG3 - MEDICINE LODGE 138KV CKT 1 | Rebuild 8.05 mile line | 1/0/1900 | 1/0/1900 | $31,060 |
| MKEC | MEDICINE LODGE - PRATT 115KV CKT 1 | Rebuild 26 mile line | 1/0/1900 | 1/0/1900 | $353,190 |
| MKEC | MEDICINE LODGE 138/115KV TRANSFORMER CKT 1 | Upgrade transformer | 1/0/1900 | 1/0/1900 | $75,043 |
| NPPD | Fort Randall - Madison County 230kV Ckt 1 | Raise structures and line clearances as necessary to re-rate the transmission line to 320 MVA | 12/23/2013 | 12/23/2013 | $10,130 |
| NPPD | Twin Church - Dixon County 230kV Line Upgrade | Increase clearances to accommodate 320MVA facility rating | 11/1/2018 | 11/1/2018 | $976 |
| OKGE | BROWN - EXPLORER TAP 138KV CKT 1 | UPGRADE CT AT BROWN NEXT LIMIT CONDUCTOR 133/156 | 1/0/1900 | 1/0/1900 | $5,015 |
| OKGE | Gracemont 138kV line terminal addition | 138kV line terminal at Gracemont substation, including breaker, line relaying, disconnect switches and associated equipment, dead end structures, revenue metering with CT's and PT's. | 10/15/2011 | 10/15/2011 | $7,960 |
| OKGE | Kingfisher Co Tap - Mathewson 345kV CKT 1 | Replace terminal equipment to achieve conductor limit | 3/1/2018 | 3/1/2018 | $6,338 |
| OKGE | NORTHWEST - WOODWARD 345KV CKT 1 | Build 345 kV line | 1/0/1900 | 1/0/1900 | $2,008,100 |
| OKGE | Woodward EHV 138kV Phase Shifting Transformer circuit #1 | Install one (1) 138 kV phase shifting transformer along with upgrading relay, protective, and metering equipment, and all associated and miscellaneous materials. | 1/0/1900 | 1/0/1900 | $80,024 |
| WFEC | Lake Creek - Lone Wolf 69kV Ckt 1 Current Transformers | Replace current transformers at Lake Creek and Lone Wolf substation | 8/8/2015 | 8/8/2015 | $379,353 |
| WFEC | WASHITA - GRACEMONT 138 KV CKT 2 | BUILD WASHITA - GRACEMONT 138KV CKT 2 (APPROXIMATELY 7 MILES). ADD LINE TERMINAL AT WASHITA AND PROCURE RIGHT OF WAY. | 10/12/2012 | 10/12/2012 | $49,565 |
| WR | Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Addition (NU) | Relaying settings changes at the new 345kV switching station. | 12/31/2016 | 12/31/2016 | $2,996 |
| WR | Tap Wichita - Thistle 345 kV Ckt 1 & 2 - Pratt Co Addition (NU) | 345 kV Breaker and Half Substation (No metering or customer equipment); Eight (8) 345 kV Breakers; Twenty (20) 345 kV switches; Two (2) 345 kV reactor switches; Fourteen (14) VTs; Two (2) 345 kV 50 Mvar line reactors; New redundant primary relaying, relay | 10/16/2016 | 10/16/2016 | $1,606,404 |

*Note: CPOs may be calculated based on upgrade(s) currently in study and/or estimated upgrade cost(s), which may be subject to change.

**Table 5 - Third Party Facility Constraints**

| Transmission Owner | UpgradeName | Solution | Earliest Date Upgrade Required (DUN) | Estimated Date of Upgrade Completion (EOC) | Estimated Engineering & Construction Cost |
|---|---|---|---|---|---|
| | None | | | | |

## Table 7- Service Upgrade Cost Allocation per Request

| Upgrade Name | Customer | Study Number | Reservation | Allocation Percentage | Allocated E & C Cost |
|---|---|---|---|---|---|
| None | None | None | 0 | 0.00% | $0 |
| | | | | **Total:** | $0 |