# NON-TARIFF WIRES TO WIRES INTERCONNECTION UPDATE STUDY AGREEMENT

This **NON-TARIFF INTERCONNECTION STUDY AGREEMENT** ("Agreement") is made and entered into this \_\_\_\_\_day of January, 2021, by and between the Incorporated County of Los Alamos, a body politic and corporate, existing as a political subdivision under the constitution and laws of the State of New Mexico ("Transmission Service Customer"), and Public Service Company of New Mexico, a corporation existing under the laws of the State of New Mexico ("PNM"). Transmission Service Customer and PNM each may be referred to as a "Party" or collectively as the "Parties."

#### **RECITALS**

WHEREAS, Transmission Service Customer requested, by letter dated September 29<sup>th</sup>, 2020, that PNM update information from a 2011 Transmission Service Study that provided benefits and costs for adding a third 115 kV line to serve Transmission Service Customer's projected load increases in the White Rock and Los Alamos communities, as well as projected load increases of the Los Alamos National Laboratory; and

WHEREAS, there are two (2) existing 115kV transmission lines that connect PNM's transmission network to Transmission Service Customer's network for delivery of network resources to Transmission Service Customer at STA Station (which is measured at Transmission Service Customer's STA Station) and ETA Station (as measured by the flow at PNM's Norton Station and less the PNM Buckman load), respectively referred to herein as the "RL line" and "NL line"; and

**WHEREAS**, the Transmission Service Customer's updated load forecast provided to PNM in March 2020 indicated that transmission system upgrades are now needed to serve a 146 MW load requirement by December 2026 and to have a load serving capacity of 200 MW to serve planned load growth beyond the 10-year forecast; and

**WHEREAS**, the projected December 2026 load level could significantly exceed the 137 MVA firm capability that could be achieved with reconductoring the NL Line, construction of a third transmission line, rather than the alternative of replacing conductor on both RL and NL lines, is the preferred solution; and

**WHEREAS**, the third line will be routed between PNM's Norton 115 kV Switching Station and Transmission Service Customers STA Station with an approximate length of 12 miles and is herein referred to as the "SN Line"; and

**WHEREAS**, Transmission Service Customer desires that PNM undertake an analysis to update the system impacts and benefits to Transmission Service Customer's load serving capability with addition of the SN Line and the potential additional benefit of adding a series reactor to the NL line or series capacitor to the RL line while identifying if other limitations in the Northeast Area of New Mexico ("NEA") could limit the possible benefits (hereafter "Study"); and

**WHEREAS**, Transmission Service Customer is legally restricted from providing advance payment for the Study; and

WHEREAS, Transmission Service Customer also desires that PNM update the preliminary cost estimates associated with the Norton interconnection of the SN line and provide a generic cost estimate for addition of the series reactor on the NL line recognizing that if Transmission Service Customer chooses to proceed, a facilities study will be required to refine the cost estimate; and

**WHEREAS**, the 115 kV system within Los Alamos Service Area is owned and operated by the U.S. Department of Energy National Nuclear Security Administration ("NNSA");

**WHEREAS**, PNM will lead the Study and/or cause the Study to be performed by a third-party consultant ("Study Consultant"); and

**WHEREAS**, the Transmission Service Customer recognizes that the Study is not being completed pursuant to PNM's OATT, and the Parties therefore recognize and concur that this Agreement and the Study not be posted on the PNM's Open Access Same-Time Information System and any and all information shared between the Parties and any and all results of the Study may be subject to non-disclosure pursuant to Sections 7 and 8 of the Agreement.

**NOW, THEREFORE,** in consideration of and subject to the mutual covenants contained herein, the Parties agree as follows:

# 1.0 PERFORMANCE OF STUDY

- (A) PNM hereby agrees to undertake the Study in the manner provided for and subject to the terms and conditions of this Agreement. The Study will specify and estimate costs of the equipment, engineering, procurement and construction work needed for interconnection of the SN line at the Norton Switching Station and determine a size and generic cost estimate for addition of a series reactor to the NL line to optimize the benefit of the SN line. PNM shall use its sole discretion (subject to Section 3.0, *Scope of Study* and Section 4.0, *Study Standards*) as to the scope, details and methods used in its performance of the Study. Transmission Service Customer will provide such information as reasonably requested by PNM to complete the Study. PNM will make reasonable efforts to complete the Study and deliver a draft report within ninety (90) days from the date of final signature of this Agreement.
- (B) PNM agrees to provide or obtain all necessary labor (including the retention of third-party contractors), materials, facilities, equipment, transportation and supervision necessary to perform the Study for Transmission Service Customer. PNM shall prepare a report on the results of the Study ("Study Report").
- (C) The effective date of this Agreement shall be the date of last signature of the Parties below.

#### 2.0 COST OF THE STUDY

Transmission Service Customer agrees to pay PNM in accordance with Section 6.0 of this Agreement. PNM estimates the cost of the Study to be \$64,595, as described in Appendix B, attached hereto and made a part hereof. This estimated cost is a not-to-exceed amount without prior written authorization by the Transmission Service Customer.

# 3.0 SCOPE OF STUDY

The scope of the Study shall be limited to steady state contingency analysis and shall be subject to the assumptions set forth in Appendix A, attached hereto and made a part hereof. The Study Report shall provide an estimate of the cost and schedule associated with the engineering, equipment, procurement and construction work needed for the construction of the Norton interconnection and series reactor addition.

#### 4.0 STUDY STANDARDS

PNM will perform the Study in a manner consistent with Appendix A. In performing the Study, PNM will use Good Utility Practice as defined in the OATT and standards outlined by the North American Electric Reliability Corporation and the Western Electricity Coordinating Council. Each Party will perform its obligations as set forth in this Agreement in a manner consistent with regional practices, applicable laws and regulations, and the organizational nature of each Party.

#### **5.0 INFORMATION REQUESTS**

PNM may request additional information during the course of the Study regarding Transmission Service Customer's proposed use of PNM's transmission system or design of the SN line, STA station, or ETA station. Transmission Service Customer shall furnish, within five (5) business days, written responses to reasonable requests for information submitted by PNM. On technical questions related to facilities of NNSA, PNM technical personnel may communicate directly with LANL and NNSA personnel.

# **6.0 PAYMENT FOR STUDY WORK**

(A) At the time of execution of this Agreement, Transmission Service Customer shall provide PNM proof of the contract amount is reserved and dedicated for the cost of the Study of \$64,595. Transmission Service Customer shall not be required to pay any costs of the Study until the Study has been Completed. On completion of the Study Report, PNM shall charge via written invoice and Transmission Service Customer shall pay the actual costs of the Study. Transmission Service Customer shall make payments, unless otherwise specified, to PNM by check or electronic funds transfer to the bank and account number listed below:

Wells Fargo Bank
PNM Misc. Depository

Albuquerque, New Mexico Bank Acct # 651-10036-98 ABA # 121-000-248

Attention: Wes Wilson

(B) Any payments not received from Transmission Service Customer by the due date(s) stated herein shall accrue interest at the rate provided for in 18 CFR 35.19a(a)(2)(iii). Interest on delinquent amounts shall be calculated from the due date of the payment, to the date of the payment receipt by PNM that may be permitted by law.

#### 7.0 OWNERSHIP OF STUDY RESULTS

Studies, reports, analyses, work papers, summaries, plans and other documents arising out of this Study are solely the property of PNM. A copy of the Study will be provided to Transmission Service Customer, subject to the provisions of Section 8 of this Agreement. All studies, computer input and output data, planning, operating and other documents, assumptions, and any other material shall remain in PNM's files, but copies shall be made available and supplied to Transmission Service Customer upon request.

Transmission Service Customer may share such copies with its technical consultants and LANL/NNSA provided that Transmission Service Customer shall be responsible for advising its technical consultants and LANL/NNSA that such materials may be confidential and prohibited from disclosure pursuant to Section 8 of this Agreement as well as local, state, or federal restrictions related to disclosure. It is specifically understood by and between the Parties to this Agreement that Transmission Service Customer may share copies of studies, reports, analyses, work papers, summaries, plans and other documents arising out of the Study with LANL/NNSA in connection with NNSA's analysis of possible impact to its facilities. Disclosure of information provided to LANL/NNSA is subject to the terms of the Freedom of Information Act limitations and restrictions.

# 8.0 NON-DISCLOSURE OF INFORMATION

- (A) Transmission Service Customer and its consultants shall consider all information provided by PNM and all studies, reports, analyses, work papers, summaries, plans and other documents arising out of the Study to be proprietary provided the information is clearly marked "Confidential" and PNM identifies the reason(s) why it considers the information proprietary and unless such information is available through public sources. Transmission Service Customer shall not publish or disclose proprietary information, other than as provided under Section 7.0 (above), for any purpose without the prior written consent of PNM. The preceding sentence shall not be construed to prohibit Transmission Service Customer from disclosing information as required by applicable law, policy or regulation. Prior to any such disclosure Transmission Service Customer shall advise PNM of the basis for disclosing the Study or any of PNM's proprietary information that is not available through public sources. PNM will not unreasonably deny Transmission Service Customer's request to disclose the Study or other materials arising out of the Study.
- (B) PNM shall consider all information provided by Transmission Service Customer to be proprietary unless such information is available through public sources. PNM shall not publish or

disclose proprietary information for any purpose without the prior written consent of Transmission Service Customer. The preceding sentence shall not be construed to prohibit PNM from disclosing information as required by applicable law, policy or regulation. Prior to any such disclosure PNM shall advise the Transmission Service Customer of the basis for disclosing the Study or any of the Transmission Service Customer's other proprietary information that is not available through public sources.

- (C) In the event that Transmission Service Customer or its employees/agents, receives a request for inspection of records under the Inspection of Public Records Act, NMSA 1978, §§ 14-2-1 to 14-2-12 ("IPRA") that encompasses confidential information provided by PNM, Transmission Service Customer will advise PNM within ten (10) business days of such request and of the specific records that Transmission Service Customer believes are responsive to such request. PNM shall advise Transmission Service Customer within five (5) business days which of those records (if any) Company claims constitute confidential information, and the basis (if any) for withholding those records from inspection under IPRA. In the event of a disagreement between Transmission Service Customer and PNM as to the validity of withholding any specific records from public inspection pursuant to IPRA, PNM and Transmission Service Customer agree to submit the issue to a court of competent jurisdiction on an expedited basis, and with each party bearing its own costs and attorney fees in connection with any such proceeding. PNM agrees that in the event a court of competent jurisdiction determines that particular records in Transmission Service Customer's possession are subject to public inspection, under no circumstances shall such inspection or production of those records be considered a violation of this Agreement, and under no circumstances may PNM seek any monetary damages against Transmission Service Customer for such inspection/production.
  - (D) This provision of this section shall survive the termination of this Agreement.

# 9.0 TERMINATION

- (A) Unless otherwise provided in this Agreement, this Agreement shall terminate upon the final payment or refund of costs as provided herein.
- (B) PNM shall have the right to terminate the Agreement at any time by providing written notice to Transmission Service Customer if Transmission Service Customer materially breaches the Agreement and fails to cure such material breach within thirty (30) days. All expenses incurred by PNM for the benefit of Transmission Service Customer prior to such termination shall continue to be the sole responsibility of Transmission Service Customer.
- (C) Transmission Service Customer may terminate the Agreement at any time by providing written notice to PNM. Following such termination by Transmission Service Customer, PNM shall determine actual expenses incurred by PNM on behalf of Transmission Service Customer under this Agreement. PNM will refund any amount paid by Transmission Service Customer in excess of actual costs. Transmission Service Customer shall be responsible for any reasonable amounts

incurred by PNM in excess of the estimated costs of the Study. Any amount incurred by PNM that is within 10% of the estimated costs of the Study are deemed to be reasonable.

#### 10.0 NOTICES

(A) All notices hereunder shall be in writing and shall be delivered to the Parties at the following addresses:

#### To PNM:

Laurie Williams
Director, Transmission & Substation Engineering
Public Service Company of New Mexico
2401 Aztec Rd. NE
MS-Z220
Albuquerque, New Mexico 87107

Phone: 505-241-0641 Fax: 505-241-4363

Email: Laurie.Williams@pnm.com

# To TRANSMISSION SERVICE CUSTOMER:

Steve Cummins
Deputy Utility Manager, Power Production
Incorporated County of Los Alamos 1000
Central Ave., Suite 130
Los Alamos, New Mexico 87544

Phone: (505) 662-8333 Fax: (505) 662-8005

Email: Robert.cummins@lacnm.us

(B) Such notices shall be deemed to have been served when personally delivered or upon receipt as evidenced by a facsimile confirmation, U.S. Postal Service receipt of mail or evidence of delivery by a private express mail service.

# 11.0 GOVERNING LAW AND VENUE

This Agreement shall in all respects be interpreted, construed and enforced in accordance with the substantive laws of the State of New Mexico without regard to its choice of law or conflict of law principles, except to the extent that such laws may be preempted by the laws of the United States of America, and also in accordance with the procedural laws of the State of New Mexico or the United States, whichever is applicable. Any action at law or judicial proceeding instituted by a Party relating to this Agreement shall be instituted only in the state or federal courts of the State of New Mexico, unless otherwise agreed to by both Parties.

# **12.0 FORCE MAJEURE**

Neither Party shall be considered to be in default in the performance of any of its obligations hereunder (other than its obligations to make payment of amounts owing pursuant hereto) if failure of performance shall be due to an uncontrollable force ("Uncontrollable Force"). The term Uncontrollable Force shall mean any cause beyond the control of the Party affected, including but not limited to failure of facilities, flood, earthquake, storm, fire, lightning, epidemic, war, riot, civil disturbance, labor dispute, sabotage, act of terrorism and restraint by court order or public authority which by exercise of due diligence and foresight such Party could not reasonably have been expected to avoid and which by exercise of due diligence it shall be unable to overcome. Nothing contained herein shall be construed so as to require a Party to settle any strike or labor dispute in which it may be involved. Either Party rendered unable to fulfill any obligations by reason of an Uncontrollable Force shall exercise due diligence to remove such inability with all reasonable dispatch.

# 13.0 LIABILITY AND INDEMNITY

PNM shall perform hereunder consistent with the Study Standards set out in Section 3.0, *Scope of Study*, but in no event shall either Party be liable to the other Party for indirect or consequential damages or for lost profits.

To the extent permitted by law, Transmission Service Customer shall at all times indemnify, defend and hold PNM harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from PNM's performance under this agreement, except in cases of gross negligence or intentional wrongdoing by PNM.

The provisions of this section 13 shall survive the termination of this Agreement.

# 14.0 ASSIGNMENTS

Neither Party shall assign this Agreement unless the other Party consents to such assignment, which consent shall not be unreasonably withheld.

#### 15.0 ENTIRE AGREEMENT

This Agreement supersedes any and all proposals and/or understandings, oral and written, relating to the Study, between the Parties and constitutes their sole and only Agreement relating to the Study, and it shall not be construed as creating any obligation of either Party to construct facilities, interconnect to PNM's system or for PNM to provide transmission service.

#### **16.0 AMENDMENT**

The Parties may by mutual agreement amend this Agreement by a written instrument duly executed by the Parties.

#### 17.0 NO PARTNERSHIP

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or to act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

#### 18.0 SUCCESSORS AND ASSIGNS

This Agreement shall be binding upon and inure to the benefit of the Parties and their respective successors and assigns.

# 19.0 WARRANTIES

While PNM will perform the Study using Good Utility Practice, PNM makes no warranties or representations regarding the results of the Study; Transmission Service Customer shall use its own knowledge, skill and expertise in interpreting or implementing the results of the Study.

# 20.0 SURVIVAL OF OBLIGATIONS AND LIABILITIES

The termination of this Agreement shall not relieve either Party of its obligations, duties, requirements or rights under this Agreement incurred or vested prior to termination of this Agreement or which, pursuant to the terms hereof, must be fulfilled after the date of termination of this Agreement.

#### 21.0 EXECUTION BY COUNTERPARTS

This Agreement may be executed in any number of counterparts, and upon execution of this Agreement by both Parties, the executed counterparts together shall have the same force and effect as an original instrument as if both Parties had signed the same instrument. Any signature page of this Agreement may be detached from any counterpart hereof without impairing the legal effect of any signature thereon and may be attached to another counterpart of this Agreement identical in form hereto but having attached to it one or more signature pages.

# 22.0 SEVERABILITY

The Parties agree that if any provision of this Agreement is found invalid unenforceable by law, the remaining sections of this Agreement shall remain in full force.

#### 23.0 NON-DISCRIMINATION

During the term of this Agreement, the Parties shall not discriminate against any person in the performance of the obligations of this Agreement, with regard to race, color, religion, sex, age, ethnicity, national origin, sexual orientation or gender identity, disability or veteran status.

# 24.0 LEGAL RECOGNITION OF ELECTRONIC SIGNATURES

The parties warrant that the persons signing this agreement have full legal authority to bind their respective organization and that pursuant to NMSA 1978 § 14-16-7, the parties agree that this Agreement may be signed by electronic signature.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

Ву:
Name: Laurie Williams
Title: Director, Transmission & Substation Engineering
Date:
THE INCORPORATED COUNTY OF LOS ALAMOS
Ву:
Name: Philo Shelton
Title: Utilities Manager
Date:

PUBLIC SERVICE COMPANY OF NEW MEXICO

# **Appendix A Non-Tariff Interconnection Facilities Study**

# ASSUMPTIONS TO BE USED IN CONDUCTING THE NON-TARIFF INTERCONNECTION FACILITIES STUDY

The Study Results will only include information to specify and estimate the PNM cost of the equipment, engineering, procurement and construction work needed for SIS Option 1 to accommodate the Project.

# **Base Cases**

Four PNM Ten-Year-Plan (TYP) base cases will be used to evaluate the improvement options:

- I. 2025 summer peak case
- II. 2025 winter peak case
- III. 2030 summer peak case
- IV. 2030 winter peak case

PNM TYP base cases are based on WECC approved base cases. These cases are used for analysis of transmission system reliability in accordance with Western Electricity Coordinating Council ("WECC") and North American Electric Reliability Corporation ("NERC") Transmission Planning Standards.

Study Option: The SIS will assess the addition of a new 115 kV transmission line from Norton to STA ("SN line"). The SN line will be approximately 12 miles in length and provides a third path from the PNM system to the Transmission Service Customer's system. The addition of a series reactor on the NL line or a series capacitor on the RL line will be evaluated for mitigation of an NL line overload and to balance the flow of power on the NL and RL lines in the event of an SN line outage.

PNM owns the terminal facilities necessary to facilitate the interconnection of the SN line at Norton station (e.g. the A frame, circuit breakers, and open bay position) with the exception of certain protection and controls equipment.

For the purposes of this study, it is assumed that cost and construction responsibility for this option will belong to the Transmission Service Customer including R-O-W, permits, licenses, or easements including protection and controls for these facilities. Accordingly, for purposes of this study, PNM cost estimates will be limited to the Norton termination.

# Project Data:

SN line, 12 miles of 1-954 MCM (ACSR) per phase, with 115 kV design.	MVA Rating=200 nominal
design.	

# Assumptions include:

Except for large industrial loads, all loads within the NEA cut set are scaled proportionally.

- No post-contingency load is tripped except for qualified RAS.
- The ETA SVC is set to absorb 0 to 10 MVARS during pre-contingency conditions; however, the full -45 to +135 MVAR operating range of the ETA will be available for voltage control during contingencies. The study may identify reactive compensation additions within the Los Alamos system to meet this criteria.

Generation dispatch for the Study cases will be adjusted as needed to identify reasonable conditions that affect load serving in Transmission Service Customer's system.

Incremental resources for serving the Transmission Service Customer's load will be imported at Four Corners.

The following preliminary list of system contingencies will be simulated in the Study:

# **N-1 Contingencies**

- 1. Four Corners West Mesa 345 kV
- 2. San Juan Rio Puerco 345 kV
- 3. BA-Norton 345 kV
- 4. Norton Hernandez 115 kV
- 5. Norton ETA 115 kV
- 6. B-A STA 115 kV
- 7. Algodones Norton Zia 115 kV
- 8. Norton-Zia 115 kV
- 9. San Juan Ojo 345 kV
- 10. Ojo Taos 345 kV
- 11. Ojo-Hernandez 115 kV
- 12. Diamond Tail-Clines Corners 345 kV Line 1
- 13. BA-Diamond Tail 345 kV Line 1
- 14. Rio Puerco BA 345 kV Line 1
- 15. Los Alamos County Internal Transmission Customer Contingencies to be provide by Los Alamos County

# **N-2 Contingencies**

- 1. Norton ETA and Norton-STA 115 kV lines if sharing structures or paralleling for more than one mile or sharing a common breaker at Norton post-third line
- 2. B-A STA line and Norton-STA 115 kV lines if sharing common structures or paralleling for more than one-mile or sharing a common breaker at STA post-third line
- 3. ETA SVC and ETA-STA 115 kV line (check for common mode).
- 4. Study will not explore N-1-1 conditions. It is assumed that RAS or import curtailments will be implemented to address operations when one-line is out of service.

# Criteria

The power flow voltage performance criteria throughout the Study will be included in the report and match the criteria used in recent PNM System Impact Studies. The criteria are NERC/WECC performance requirements as well as applicable additions and exceptions for the New Mexico transmission system.

# **Stability Criteria**

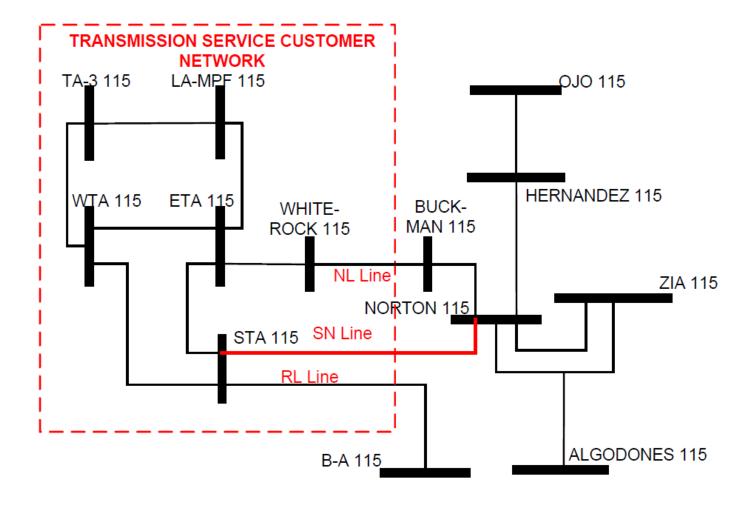
Stability analysis is not expected to define limitations to the Transmission Service Customers import capability and is not being performed. As a result stability criteria is not included.

# Deliverables Report

A report containing results of the Study will be issued. The following information will be included, and additional information if applicable, as determined by PNM.

- 1. Summary
- 2. General descriptions of the existing and proposed System Improvements.
- 3. Preliminary discussion of right-of-way and environmental concerns or requirement needs for station additions for the Norton Interconnection.
- 4. Preliminary general arrangement drawing or one-lines for the Norton interconnection.
- 5. Preliminary cost estimates and construction schedule for the System Improvements that specifically will be owned and operated by PNM.
- 6. A generic cost estimate and construction schedule will be developed for addition of a series reactor to the NL line.

# Exhibit A Third Line One-Line



New Line ("SN line") from Norton to STA

# APPENDIX B INTERCONNECTION FACILITIES STUDY ESTIMATE OF NON-TARIFF INTERCONNECTION FACILITIES STUDY COSTS

Group	Activi ty	Hours		Costs Estimates
3 <sup>rd</sup> Party Engineering Firm	Transmission Design			
	Protection & Controls Design			
	Series Reactor Design			
	Total Engineering Estimate			\$50,000
Transmissi	Study Review and Report	120		
	Contract Management	4 0		
	Total PNM Hours	1 6 0		
	Estimated Loaded Cost (\$ per hour)			\$ 85
	PNM Costs			\$ 13,600
	Gross Receipts Tax		7.3125 %	\$995
	TOTAL			\$64,595