El Paso Electric

300 Galisteo Street, Suite 206
Santa Fe, New Mexico 87501
(505) 982-7391

19-00350-UT

November 20, 2019

VIA HAND DELIVERY
Ms. Melanie Sandoval
Records Bureau
New Mexico Public Regulation Commission
1120 Paseo de Peralta
Santa Fe, NM 87501

Re: El Paso Electric Company's Application for Expedited Approval of a Certificate of Public Convenience and Necessity and for a Special Rate Contract, and Testimony in Support

Dear Ms. Sandoval:

Enclosed please find the original and five (5) copies of ***El Paso Electric Company's Application for a Certificate of Public Convenience and Necessity to Construct a Solar Generation/Storage Project at New Mexico State University and for Approval of a Special Rate Contract and the Supporting Direct Testimonies of James A. Schichtl and Omar Garcia-Bracho and Julio C. Aguirre.***

Also enclosed please find the required filing fee of $25.00 for the application. Please assign a case number and conform and return the additional copies to our messenger. Thank you.

Very truly yours,

Nancy B. Burns
Senior Attorney
Paso Electric Company

Enclosures
cc: Service List

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF EL PASO ELECTRIC COMPANY'S APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A SOLAR GENERATION/STORAGE PROJECT AT NEW MEXICO STATE UNIVERSITY AND FOR APPROVAL OF A SPECIAL RATE CONTRACT)	**Case No. 19-00350-UT**
EL PASO ELECTRIC COMPANY, Applicant.	

APPLICATION FOR EXPEDITED APPROVAL OF A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND FOR A SPECIAL RATE CONTRACT

El Paso Electric Company ("EPE" or "Company"), in accordance with the requirements of the New Mexico Public Utility Act, NMSA 1978, Sections 62-9-1, 62-9-6, and 62-6-26, the Final Order in Case No. 09-00171-UT, and EPE's Rate No. 30, files this Application with the New Mexico Public Regulation Commission ("NMPRC" or "Commission") for expedited approval of a Certificate of Public Convenience and Necessity ("CCN") for a New Mexico State University ("NMSU") solar generation project and a special rate contact between EPE and NMSU to recover the costs of the proposed facility. Specifically, EPE seeks expedited approval for a CCN to construct, own and operate a 3 megawatt ("MW"), microgrid ready, ground mounted, single-axis solar photovoltaic generating facility coupled with a 1 MW, 4 megawatt-hour ("MWh") battery storage system on NMSU property located within Arrowhead Park, a research park established by the NMSU Regents under the University Research Park and Economic Development Act, NMSA Section 21-28-1 *et seq.*, in Doña Ana County, New Mexico, to be designated as the NMSU Project ("the Project"). If approved, Project construction is scheduled to begin in 2020, and the Project is scheduled to be in service in 2021.

Additionally, EPE is requesting approval of a Special Rate Contract. The Special Rate Contract is designed to recover the full costs of the Project from NMSU, and EPE will not seek approval to include the cost of the Project in rate base. A copy of the Special Rate Contact is attached hereto as Attachment A, and is supported by the Affidavit of Dr. Dan Arvizu and the Affidavit of Dale Harrell on behalf of NMSU attached as Attachments B and C. Pursuant to NMSA 1978, Section 62-9-1(C), the Commission may approve this CCN application and the Special Rate Contract, without a formal hearing if no protest is filed within sixty days of the date of EPE's attached Notice.

EPE seeks expedited approval because the favorable federal Investment Tax Credit ("ITC") will change, effective at the end of 2020, so EPE needs timely approval to incorporate the ITC benefits for construction in 2020. If approved, Project construction is scheduled to begin in 2020 to be eligible for 2020 ITC benefits (26 percent), and the Project is scheduled to be in service in 2021. In support, EPE respectfully shows as follows:

1. EPE is certified and authorized to conduct the business of providing public utility service within the State of New Mexico and is a public utility subject to the jurisdiction of the Commission under the New Mexico Public Utility Act ("NMPUA").

2. EPE generates, transmits and distributes electricity through an interconnected system to customers in southern New Mexico and Texas. EPE owns, operates, leases or controls the plant, property and facilities used by it for the generation, transmission, distribution, sale or furnishing of electricity to or for the public within New Mexico and Texas. EPE provides retail electric service to approximately 101,000 customers within its New Mexico service area.

3. EPE's principal business address and telephone number for its New Mexico service area are:

El Paso Electric Company
100 N. Stanton Street
El Paso, Texas 79901

(915) 543-5711

4. The Project will provide 3 MW of solar nameplate capacity and 1 MW, 4 MWh of battery energy storage system nameplate capacity that will be delivered to NMSU's distribution system.

5. This Project is being designed, built, and operated at the request of the NMSU on land owned by NMSU to supply a portion of NMSU's electric utility load with renewable energy and storage and to provide NMSU's students and faculty with an environment for educational and research purposes.

6. EPE conducted a competitive request for proposal ("RFP") to select the facility for the NMSU Project. The Affordable Solar, Inc. bid that was ultimately selected was for a 3 MW, microgrid ready, ground mounted, single-axis solar photovoltaic generating facility coupled with a 1 MW, 4 MWh battery storage system on NMSU property located within Arrowhead Park, and expected to be in service in 2021.

7. The Project will interconnect at the Tortugas Substation at the distribution level to facilities owned and operated by NMSU.

8. The estimated capital construction cost for the NMSU Project is approximately $6.7 million. In addition, other capital costs for the NMSU Project include the following: interconnection costs of approximately $405,650, estimated AFUDC of approximately $262,783, fencing of $261,000, capitalized administrative and general ("A&G") costs, and other expenses of $200,004, for a total capital cost of $7.838 million. This cost does not reflect the 26 percent ITC that this project will be eligible for if project construction begins in 2020.

9. The full cost of the facility will be recovered through the sale of energy to NMSU, and EPE will not seek to include the costs of the facility in rate base.

10. EPE is statutorily permitted to enter into mutually agreeable special rate contracts with its retail customers for purposes of load retention pursuant to NMSA 1978, Section 62-6-26

(2014).

11. In various general rate cases, EPE and parties entered into stipulations adopted by Final Order (*see, i.e.*, NMPRC Case No. 09-00171-UT, Stipulation, p. 9, Section 7) that, among other things, provides "EPE is statutorily permitted to enter into mutually agreeable special rate contracts with its retail customers for purposes of load retention ... Any contract executed by EPE and a retail customer shall comply with the requirements of the statute and shall be filed with and approved by the Commission before such contract may become effective." *See also* Final Orders in NMPRC Case Nos. 2722 (Sep. 24, 1998), 03-00302-UT (April 27, 2004), 06-00258-UT (June 8, 2007) and 09-00171-UT (Dec. 10, 2009).

12. Pursuant to EPE's Rate No. 30, EPE has submitted and the Commission has approved various special contracts for load retention between EPE and certain large non-residential customers *See generally,* NMPRC Case Nos. 04-00485-UT, 05-00083-UT, 05-00142-UT, 05-00169-UT, 05-00239-UT, 06-00090-UT, 14-00060-UT, and 16-00224-UT. For instance, the Commission's Final Order in Case No. 16-00224-UT approved a special rate contract with Holloman Air Force Base ("HAFB") to recover the costs of the HAFB 5 MW Solar Project, approved by the Commission's Final Order in Case No. 15-00185-UT.

13. EPE and NMSU have negotiated a load retention contract (Exhibit JS-1) pursuant to EPE's Rate No. 30 (Attachment A) for the ongoing provision of retail electric services.

14. The contract is a load retention agreement that complies with NMSA 1978, Section 62-6-26, the Final Order in Case No. 09-00171-UT and EPE's Rate No. 30.

15. The contract is of mutual benefit to NMSU and EPE. The contract provides savings and benefits to NMSU, ensures power supply and delivery, and provides NMSU students and faculty with an environment for educational and research purposes.

16. The contract rates are designed to recover all costs of the Project from NMSU. The contract rates are above EPE's incremental costs to provide service. The special retail contract

does not affect other customers.

17. NMSU has provided data and information regarding the need for a load retention rate, and such data and information demonstrates compliance with Rate No. 30. Attachment B, Affidavit of Dr. Dan Arvizu, and Attachment C, Affidavit of Dale Harrell on behalf of NMSU.

18. The Special Rate Contract was executed by EPE and NMSU on November 15, 2019, and will become effective immediately upon Commission approval of the Contract.

19. The accompanying testimony and exhibits demonstrate that the Project is necessary for public convenience and necessity, will not result in unnecessary duplication or economic waste, and that the proposed special rate contract complies with NMSA 1978, Section 62-6-26, the Final Order in Case No. 09-00171-UT and EPE's Rate No. 30.

20. EPE's witnesses and the subjects they address are as follows:

James A. Schichtl - Mr. Schichtl is EPE's Vice President-Regulatory Affairs. He presents EPE's overall CCN special contract rate request and summarizes the Company's filing. He also specifically sponsors information about how the Project will be financed, together with the financial impact on EPE, and that there will be no cost or rate impact on other New Mexico customers.

Omar Garcia-Bracho - Mr. Garcia-Bracho is Supervisor-Renewables Development and Management, in EPE's Business Development Department. Mr. Garcia-Bracho describes the Project, including technical matters such as the technology selected, costs and schedule. He summarizes the selection process for this resource. Mr. Garcia-Bracho also explains how the NMSU and EPE collaborated on this project. Last, Mr. Garcia-Bracho addresses how the Project furthers goals and objectives of the NMSU, which is EPE's largest public institutional customer in New Mexico and an important presence in EPE's service area.

Julio C. Aguirre – Mr. Aguirre is a Senior Rate Analyst in EPE's Rates and Regulatory Affairs Department. Mr. Aguirre supports the pricing and billing structure for the proposed

Project. He discusses the bill mechanism through which EPE will assess the cost of the Project to customers, describes the proposed charges and applicable bill credits proposed for the Project and shows that its approval will not adversely impact any other New Mexico customers.

21. Service of all notices, pleadings and other documents related to this Application should be made as follows:

Mariah Medley Novela,
Regulatory Case Manager
El Paso Electric Company
100 N. Stanton Street
El Paso, Texas 79901
(915) 521-4662

Jeffrey J. Wechsler
John McIntyre
Montgomery & Andrews. P.A.
Post Office Box 2307
Santa Fe, New Mexico 87504-2307
(505) 982-3873

Electronic service should be made as follows: mariah.medley@epelectric.com; jwechsler@montand.com; jmcintyre@montand.com; nancy.burns@epelectric.com; and partricia.griego@epelectric.com.

22. As indicated on the Certificate of Service attached hereto, EPE has mailed a copy of its Application and supporting Direct Testimonies and Exhibits to parties to EPE's most recent general rate case (NMPRC Case No. 15-0027-UT). EPE's proposed form of Notice is also attached hereto as Attachment D.

23. EPE seeks expedited and timely treatment of its Application, in order to meet the proposed construction schedule. EPE requests, if no protests are filed within sixty days of the date of notice, that the Commission approve EPE's Application without a formal hearing, but in any event requests that this matter be concluded by the second quarter of 2020.

WHEREFORE, EPE respectfully requests that the Commission, after such notice and hearing as it deems necessary, issue a Final Order in this case that:

A) Approves a CCN for the construction and operation of the Facility;

B) Approves the Special Rate Contract for cost recovery of the Project; and

C) Grants such other approvals, authorizations and relief as may be necessary or appropriate.

Respectfully submitted,

Nancy B. Burns
Senior Attorney
New Mexico Bar No. 7538
El Paso Electric Company
300 Galisteo Street, Suite 206
Santa Fe, New Mexico 87501
Telephone (505) 982-4713
nancy.burns@epelectric.com

MONTGOMERY & ANDREWS, P.A.

Jeffrey J. Wechsler
John McIntyre
Post Office Box 2307
Santa Fe, New Mexico 87504-2307
(505) 982-3873
jwechsler@montand.com
jmcintyre@montand.com

ATTORNEYS FOR
EL PASO ELECTRIC COMPANY

Special Rate Contract

Between

El Paso Electric Company

and

The Regents of New Mexico State University

dated as of

November 15, 2019

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LIST OF EXHIBITS

SPECIAL RATE CONTRACT

BETWEEN

EL PASO ELECTRIC COMPANY

AND

THE REGENTS OF NEW MEXICO STATE UNIVERSITY

This Agreement is entered into as of the Effective Date by and between EPE and NMSU.

RECITALS

WHEREAS, EPE is a public utility and provides retail electric service within the geographic area of the State of New Mexico in which NMSU is located, and desires to retain NMSU's load;

WHEREAS, EPE is authorized, pursuant to the Public Utility Act, NMSA § 62-6-16 and the Final Orders in NMPRC Case Nos. 09-00171-UT and 15-00185-UT to enter into special contracts with customers and contracts for load retention of retail electric service pursuant to EPE's Sixth Revised Rate No. 30, Load Retention Rate;

WHEREAS, NMSU is an existing retail customer of EPE, and operates its main campus facilities that are connected to EPE's retail distribution system in Las Cruces, New Mexico;

WHEREAS, NMSU desires to advance its renewable energy goals, and has requested EPE to supply a portion of NMSU's electric utility load with renewable energy and storage as well as to provide NMSU's students and faculty with research and educational opportunities through a solar PV generation and battery facility to be located within Arrowhead Park on NMSU's main campus in Las Cruces, New Mexico;

WHEREAS, NMSU has informed EPE of its renewable energy objectives and that, but for agreement with EPE to provide such service, NMSU will obtain the desired service from a third party;

WHEREAS, EPE desires to retain NMSU's load and increase the amount of renewable energy on its system while at the same time gaining further experience with operating and maintaining solar and energy storage technology;

WHEREAS, in response to NMSU's request, EPE desires to develop, finance, construct, own, operate, and maintain the Project;

WHEREAS, EPE and NMSU desire that the rate agreed to in this Agreement be designed and calculated so that (1) no other customers of EPE are charged for any costs associated with the Project; (2) the rate that NMSU will pay for electric utility service from EPE is sufficient to cover EPE's cost of serving NMSU; and (3) the Project is expected to be net cost neutral or positive to NMSU over the Term.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained, EPE and NMSU hereby agree as follows:

ARTICLE 1. RULES OF CONSTRUCTION, INTERPRETATION, DEFINITIONS.

1.1. Rules of Construction.

Capitalized terms in the Agreement, including as defined in this Article 1, will have the meanings set forth herein whenever the terms appear in the Agreement, whether in the singular or the plural or in the present or past tense. Words not otherwise defined herein that have well known and generally accepted technical or trade meanings are used herein in accordance with such recognized meanings. In addition, the following rules of construction will apply:

1.1.01 References to "Articles," "Sections," or "Exhibits" will be to articles, sections, or exhibits of the Agreement.

1.1.02 The Exhibits attached hereto are incorporated in and are intended to be a part of the Agreement; provided, that, in the event of a conflict between the terms of any Exhibit or Schedule and the terms of the Agreement, the terms of the Agreement will control.

1.1.03 The Agreement was negotiated and prepared by both Parties with the advice and participation of counsel. The Parties have agreed to the wording of the Agreement, and none of the provisions hereof will be construed against one Party on the ground that such Party is the author of the Agreement or any part hereof.

1.1.04 The Parties will act in a commercially reasonable manner and in accordance with the principles of good faith and fair dealing in the performance of the Agreement. Unless and except as expressly provided otherwise in the Agreement, wherever the Agreement gives a Party a right to determine, require, specify, or take similar action with respect to a matter, such determination, requirement, specification, or similar action will be commercially reasonable. References herein to any Applicable Law will, except as otherwise specified, mean such Applicable Law as amended and in effect from time to time, including any successor to or replacement of such Applicable Law.

1.1.05 Use of the words "include" or "including" or similar words will be interpreted as "include without limitation" or "including, without limitation."

1.2. Definitions.

Unless defined elsewhere herein, capitalized terms used in the Agreement will have the following scope and meaning:

1.2.01 "**ADR**" means alternative dispute resolution.

1.2.02 "**Agreement**" means this Special Rate Contract.

1.2.03 "**Agreement Approval**" means a non-appealable final order or other regulatory determination from the NMPRC approving EPE entering into the Agreement pursuant to NMSA 1978, sections 62-6-26, 62-8-6, and EPE's Load Retention Tariff No. 30.

1.2.04 "**Applicable Laws**" means all applicable laws, statutes, treaties, codes, ordinances, regulations, certificates, orders, licenses, and permits of any Governmental Authority, now in effect or hereafter enacted, amendments to any of the foregoing, interpretations of any of the foregoing by a Governmental Authority having jurisdiction, and all applicable judicial,

administrative, arbitration, and regulatory decrees, judgments, injunctions, writs, orders, awards, or like actions (including those relating to human health, safety, the natural environment, or otherwise).

1.2.05 **"Approval Order"** means a final order or other regulatory determination from the NMPRC approving EPE entering into the Agreement.

1.2.06 **"Arrowhead Park"** means that land, in Doña Ana County, New Mexico, leased to Arrowhead Center Inc. by NMSU for the purposes of development of a research park as defined in the ground lease dated February 6, 2007.

1.2.07 **"Business Day"** means any day other than a Saturday, Sunday or a legal holiday in Las Cruces, New Mexico, or El Paso, Texas.

1.2.08 **"Cancellation Schedule"** has the meaning provided in Section 13.3.02(a).

1.2.09 **"CCN"** means a Certificate of Public Convenience and Necessity issued by the NMPRC pursuant to NMSA 1978, section 69-9-1.

1.2.10 **"CCN Approval"** means a non-appealable final order or other regulatory determination from the NMPRC approving a CCN for EPE to construct, own, and operate the Project.

1.2.11 **"CCN Order"** means a final order or other regulatory determination from the NMPRC approving a CCN for EPE to construct, own, and operate the Project.

1.2.12 **"Commercial Operation"** means the Project has met "Commercial Delivery of Power" as set forth in EPC Contract; EPE has satisfied all conditions precedent in Article 7; and the Project is capable of providing Project Power to the Project Power Point of Delivery at the Nameplate Capacity, consistent with Prudent Utility Practice.

1.2.13 **"Commercial Operation Date"** means the date that the Project meets Commercial Operation.

1.2.14 **"Default Termination Notice"** means a written notice from one Party informing the other Party that an Event of Default exists.

1.2.15 **"Early Termination"** means a termination of the Agreement prior to the 30th year of the Term, as provided in Article 13.

1.2.16 **"Effective Date"** means November 8, 2019.

1.2.17 **"EPC Contract"** means the Turnkey Engineering, Procurement and Construction Agreement for Coupled Solar Photovoltaic Generating Facility and Energy Storage System between EPE and Affordable Solar Installation, Inc. for the construction of the Project.

1.2.18 **"EPE"** means El Paso Electric Company, a Texas corporation.

1.2.19 **"EPE Event of Default"** means each of those events described in Section 12.1.

1.2.20 **"Event of Default"** means each of those events described in Article 12 constituting an act of default by either of the Parties.

1.2.21 **"Force Majeure Event"** means events beyond the Parties' reasonable control including, but not limited to, acts of God, such as lightning, floods, washouts, earthquakes or storms, acts of war, acts of public enemies, labor disputes, strikes or other industrial disturbances, fire, explosion, accidents, sabotage or vandalism; orders, laws or decrees of Governmental Authorities; or lack of raw materials necessary for the provision of the service, unforeseen operational problems on the generation, transmission or distribution systems of others or other events of similar kind and effect beyond the reasonable control of the Party claiming such force majeure.

1.2.22 **"Governmental Authority"** means any federal, state, local, or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority, including the NMPRC, having jurisdiction over a Party or the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power.

1.2.23 **"Grid Resource Power"** means firm electric demand and energy delivered through the electrical distribution system owned by EPE and operated and maintained outside of NMSU's distribution system.

1.2.24 **"Grid Resource Power Point of Delivery"** means the point of delivery of Grid Resource Power through the electrical distribution system owned by EPE and interconnected to the NMSU-owned Tortugas Substation.

1.2.25 **"Immediate Notice"** means notice that must be provided as soon as practicable but in no case more than 12 hours after a Party is aware of the need to provide notice.

1.2.26 **"kV"** means kilovolts.

1.2.27 **"kWh"** means kilowatt-hour.

1.2.28 **"MPT"** means Mountain Prevailing Time, which is the time in effect in the Mountain Time Zone of the United States of America, whether Mountain Standard Time or Mountain Daylight Saving Time.

1.2.29 **"MW"** means megawatt.

1.2.30 **"MWh"** means megawatt hour.

1.2.31 **"Nameplate Capacity"** means the rated MW output of the Project under expected operating conditions guaranteed by EPE's contractor in the EPC Contract of three MW alternating current for the solar PV and one MW / four MWH for the battery energy storage system.

1.2.32 **"NMAC"** means New Mexico Administrative Code.

1.2.33 **"NMPRC"** means the New Mexico Public Regulation Commission.

1.2.34 **"NMPRC Approvals"** means collectively the CCN Approval and Agreement Approval.

1.2.35 **"NMPRC Approval End Date"** means 10 months following the date EPE files its application for CCN Approval at the NMPRC.

1.2.36 **"NMSA"** means New Mexico Statutes Annotated.

1.2.37 **"NMSU"** means the Regents of New Mexico State University, or New Mexico State University.

1.2.38 **"NMSU Event of Default"** means those events as set forth in Section 12.2.

1.2.39 **"Notice of Early Termination"** means a written notice provided by the terminating Party to the non-terminating Party that it intends to terminate the contract for a reason other than an Event of Default, with such notice being provided in the manner required by Section 13.2.02.

1.2.40 **"Parties"** means collectively, EPE and NMSU.

1.2.41 **"Party"** means individually, EPE or NMSU.

1.2.42 **"Project"** means a solar PV facility with Nameplate Capacity of three MW alternating current and associated battery storage facility with Nameplate Capacity of one MW / four MWh that will supply power to NMSU on land located at Arrowhead Park on the NMSU campus.

1.2.43 **"Project Power"** means electric demand and energy delivered by the Project to NMSU's distribution system.

1.2.44 **"Project Power Point of Delivery"** means the point at which Project Power is delivered to NMSU and first leaves the line or apparatus owned by EPE, which will be behind the meter for Grid Resource Power.

1.2.45 **"Project REC"** means the REC created due to the electricity generated by the Project facilities.

1.2.46 **"Prudent Utility Practice"** means any of the practices, methods, and acts engaged in or approved by a significant portion of the utility-scale solar and battery industry during the relevant time period, or any of the practices, methods, and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition. Prudent Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be practices, methods, or acts generally accepted in the region.

1.2.47 **"PV"** means photovoltaic.

1.2.48 **"Rate 26"** means New Mexico Rate No. 26 – State University Service Rate ("Rate 26"), or any subsequent rate tariff superseding it as approved by the NMPRC.

1.2.49 **"Renewable Energy Benefits"** means any and all renewable and environmental attributes, emissions reductions, credits, offsets, allowances, or benefits, however entitled, (a) allocated, assigned, awarded, certified, or otherwise transferred or granted to EPE or NMSU by any federal, state, local, or other Governmental Authority in any jurisdiction in connection with the Project or (b) associated with the production of energy from the Project or based in whole or in part on the Project's usage of renewable resources for generation or because the project constitutes a renewable energy system or the like or because the Project does not produce greenhouse gases, regulated emissions, or other pollutants, in each case, whether any such credits,

offsets, allowances, or benefits (x) exist now or in the future, (y) arise under existing Applicable Law or any future Applicable Law (whether such credit, offset, allowance, or benefit or any Applicable Law, or the nature of such, is foreseeable or unforeseeable), or (z) arise in respect of electrical energy that is delivered to the Project Power Point of Delivery.

1.2.50 **"Renewable Energy Certificate"** or **"REC"** means a certificate or other record that represents all the environmental attributes from one MWh of electricity generated from renewable energy and that is registered with a regional tracking system approved by the NMPRC for the purpose of tracking RECs for utility compliance with the Renewable Energy Act, NMSA 1978, section 62-16-1 et seq.

1.2.51 **"Sublease"** means that Ground Sublease on Arrowhead Park in Doña Ana County, New Mexico by and between EPE and Arrowhead Center, Inc.

1.2.52 **"Summer Months"** means the months of May through October.

1.2.53 **"Term"** means the period of time commencing on the Effective Date and terminating at 11:59 am MPT on the date that is the last day of the thirtieth year after the Commercial Operation Date subject to the early termination provisions set forth herein.

1.2.54 **"Test Power"** means electrical energy produced by the Project during construction and testing prior to the Commercial Operation Date.

1.2.55 **"Tortugas Substation"** means that facility located on Payne Street on the NMSU campus where the EPE Grid Power Point of Delivery currently connects to the NMSU electrical distribution system.

1.2.56 **"WREGIS"** means the Western Renewable Energy Generation Information System.

ARTICLE 2. PROJECT OBJECTIVES AND DESCRIPTION.

2.1. Project Objectives and Benefits.

2.1.01 The objectives of the Project are for EPE to supply a portion of NMSU's electric utility load with renewable energy and storage as well as to provide NMSU's students and faculty with research and educational opportunities.

2.1.02 The Parties acknowledge that the Project will also benefit EPE by increasing the amount of renewable energy on EPE's system, providing opportunities for EPE to manage its peak load service during Summer Months, and allowing EPE to gain further experience with operating and maintaining solar and energy storage technology.

2.2. Location.

The Project will be located within the NMSU campus as provided in the Sublease.

2.3. Description of Service.

EPE will furnish to NMSU and NMSU will receive and pay for Project Power in accordance with and under the terms and conditions set forth in this Agreement and its Exhibits. EPE will conduct operation and maintenance of the Project at no additional cost to NMSU other

than what is contemplated by this Agreement, perform maintenance in accordance with equipment manufacturer recommendations, and ensure that the Project is operational and producing the maximum amount of power possible, and providing power in accordance with Prudent Utility Practices. To the maximum extent practicable, EPE will schedule maintenance and repair of the Project such that the Project Power purchased by NMSU is maximized.

2.4. Point of Delivery.

2.4.01 There will be two points of delivery: (i) the Project Power Point of Delivery and (ii) the Grid Resource Power Point of Delivery.

2.4.02 EPE agrees to provide all necessary labor, materials, tool, equipment, facilities, transportation and incidentals to deliver Project Power to NMSU.

2.5. Metering.

2.5.01 EPE, at its expense, will install and maintain the appropriate metering equipment at NMSU for billing purposes. The Project Power furnished under this Agreement will be measured by such metering equipment at a voltage of 23.9 kV for both the Grid Resource Power Point of Delivery and the Project Power Point of Delivery. EPE, at its own expense, will inspect and test the billing meter upon installation and at least annually thereafter. EPE will provide NMSU with reasonable advance notice of, and permit a representative of NMSU to witness and verify, such inspections and tests, provided, however, that NMSU must not unreasonably interfere with or disrupt the activities of EPE and will comply with all applicable safety standards.

2.5.02 Either EPE or NMSU may elect to install and maintain, at its own expense, survey metering devices in addition to the billing metering equipment. Installation and maintenance of the survey metering devices and billing metering equipment will be performed in a manner acceptable to EPE. The installing Party, at its own expense, will inspect and test the survey metering devices. The survey metering devices installed by NMSU must be located outside the Project facility

2.6. Customer Installations.

NMSU agrees that it will not, without prior notice to and consent of EPE, install any motor, appliance, or any other apparatus on the Project equipment.

2.7. Project Construction and Operation.

2.7.01 EPE will design, engineer, install, commission, operate, and maintain the Project, in each case in a good and workmanlike manner and in accordance with Prudent Utility Practice and all Applicable Laws and policies in place during the Term of this Agreement. EPE will issue a notice to proceed to its contractor under the EPC Contract within five Business Days of receiving NMPRC Approvals unless good cause is shown to reasonably delay such issuance.

2.7.02 EPE will endeavor to use suitably qualified, experienced, and licensed contractors and subcontractors to perform its obligations under this Agreement. EPE will be responsible for the quality of the work performed by its contractors and subcontractors. EPE will pay when due all valid charges from all contractors, subcontractors, and suppliers supplying goods or services to EPE under this Agreement. EPE will be solely responsible for payment of wages, salary, or

benefits to any and all employees or contractors retained by EPE in the performance of the services agreed to herein.

2.7.03 EPE will provide to NMSU, upon reasonable request, an annual summary in writing of Project performance, to include Project Power delivered, battery performance, and system faults.

2.8. Continuity of Service.

EPE will use reasonable diligence to provide a regular and uninterrupted production of Project Power from the Project, subject to agreements to provide different service pursuant to any validly entered into agreement, outages for maintenance and repair, and due to Force Majeure Events pursuant to Article 15.

ARTICLE 3. SALE AND PURCHASE OF ENERGY OUTPUT.

3.1. Sale and Purchase.

In accordance with and subject to the terms and conditions of this Agreement, commencing on the Commercial Operation Date and continuing through the end of the Term, EPE must sell and deliver to NMSU, and NMSU must purchase and receive from EPE, all right, title, and interest in and to the Project Power, which is to be delivered to NMSU at the Project Power Point of Delivery and the payment therefor is to be calculated as provided in Exhibit A.

3.2. Title and Risk of Loss.

As between EPE and NMSU, EPE will be deemed to be in control of the Project Power from the Project up to the Project Power Point of Delivery, and NMSU will be deemed to be in control of such Project Power from and after the Project Power Point of Delivery. Title and risk of loss related to the Project Power will transfer from EPE to NMSU at the Project Power Point of Delivery.

ARTICLE 4. RATE CALCULATION.

Rate calculations will be as set forth in Exhibit A.

ARTICLE 5. BILLING AND PAYMENT.

5.1. Invoices.

At the completion of each month of service from the Project, EPE will submit a summarized invoice for services rendered from the Project for that month. EPE will prepare and submit a combined monthly invoice including charges for Grid Resource Power and Project Power, including any credits, as calculated and provided in Exhibit A. Upon NMSU request, EPE will provide the available interval data.

5.2. Payment.

Invoices will be due and payable as indicated on the invoices submitted in accordance with Section 5.1.

5.3. Billing Disputes.

Any billing disputes shall be handled in accordance with section 17.9.560 NMAC.

ARTICLE 6. ENVIRONMENTAL ATTRIBUTES.

6.1. No Use for Renewable Energy Act Requirements.

6.1.01 EPE will not use any Project REC to meet EPE's renewable portfolio standard requirements pursuant to subsection A of section 62-16-4 NMSA 1978, as it may be amended from time to time.

6.1.02 EPE will exclude all Project RECs from the total retail sales to New Mexico customers used to determine EPE's renewable portfolio standard requirements pursuant to subsection A of section 62-16-4 NMSA 1978 as it may be amended from time to time.

6.2. Rights to Claims of Use of Project Renewable Energy and Renewable Energy Benefits.

6.2.01 NMSU will have the exclusive rights to make claims – either explicitly or implicitly – about using or being powered with (or similar claims) the renewable energy generated by the Project and the Project's Renewable Energy Benefits.

6.2.02 EPE will have no right to make any claim – either explicitly or implicitly – about using or being powered with (or similar claims) the renewable energy generated by the Project and the Project's Renewable Energy Benefits.

6.3. Registration and Retirement of Project RECs.

6.3.01 EPE, as owner of the Project, will register the Project in WREGIS 30 days after Commercial Operation has been achieved. EPE will indicate when registering the generating unit in the WREGIS system, that the Project RECs will automatically be transferred to NMSU.

6.3.02 NMSU will establish an account with WREGIS in order to receive the transferred Project RECs from EPE associated with the Project. It will be NMSU's sole responsibility to retire any of the Project RECs as NMSU will be the owner of the Project RECs.

ARTICLE 7. CONDITIONS PRECEDENT.

The rights and obligations of the Parties under this Agreement are and will be conditioned upon (i) receipt of all NMPRC Approvals as provided in Section 8.2 and (ii) execution of the Sublease.

ARTICLE 8. LEGAL AND REGULATORY COMPLIANCE AND APPROVALS.

8.1. Laws.

EPE must at all times comply with the Applicable Laws in designing, engineering, constructing, and operating the Project. NMSU must at all times comply with the Applicable Laws in its actions under this Agreement and with respect to the Project.

8.2. NMPRC Approvals.

The obligations of the Parties hereunder will be conditioned upon the receipt of the NMPRC Approvals.

8.2.01 EPE agrees to use commercially reasonable efforts to request and obtain the NMPRC Approvals, and NMSU agrees to provide reasonable cooperation and assistance to EPE in these efforts.

8.2.02 If the NMPRC has not, for any reason, issued CCN Approval or an Approval Order by the NMPRC Approval End Date, then the Parties must meet and confer no later than 15 days after the NMPRC Approval End Date regarding a potential extension of the NMPRC Approval End Date. If the Parties are unable to mutually agree to an extension of the NMPRC Approval End Date, then this Agreement will automatically terminate 10 days after the date on which the Parties conferred and be of no further force and effect except as set forth below. If the Parties fail, for any reason, to meet and confer within 15 days after the NMPRC Approval End Date, then this Agreement will terminate on the 15th day after the NMPRC Approval End Date and be of no further force and effect.

8.2.03 *CCN Approval.*

(a) CCN Approval will be considered received when the NMPRC issues a final, non-appealable order or other final, binding regulatory determination from the NMPRC either (i) approving EPE's application for a CCN, or (ii) approving the CCN in part or subject to conditions or substantial modifications, provided that each of EPE and NMSU agrees, subject to its reasonable discretion, to accept those conditions, modifications or such partial approval, and further provided that the NMPRC's approval, disapproval, conditions on, substantial modifications to, or partial approval of EPE requests other than for a CCN pursuant to NMSA 1978, section 62-9-1.A will not be considered by either Party to be a condition, modification, or partial approval of a CCN.

(b) If the NMPRC denies the CCN, then this Agreement will automatically terminate 10 days after the date of such action by the NMPRC and be of no further force or effect except as set forth below.

(c) If a CCN Order is issued as described in clause (ii) of Section 8.2.03(a), then the Parties must meet and confer no later than fifteen 15 days after the date of Commission issuance of the CCN Order regarding whether EPE and NMSU will elect to amend this Agreement to address any conditions or modifications or not to accept any partial or conditioned approval or modification to this Agreement as a result of the CCN Order. If the Parties are unable to mutually agree on any amendments to this Agreement to address such CCN Order, then this Agreement will automatically terminate 10 days after the date on which the Parties conferred and be of no further

force or effect except as set forth below. If the Parties fail, for any reason, to meet and confer within 15 days after the date of Commission issuance of the CCN Order, then this Agreement will terminate on the 15th day after the date of Commission issuance of the CCN Order and be of no further force or effect except as set forth below.

8.2.04 *Agreement Approval.*

(a) Agreement Approval will be considered received when the NMPRC issues a final, non-appealable order or other final, binding regulatory determination from the NMPRC either (i) approving this Agreement, or (ii) approving this Agreement in part or subject to conditions or modifications, provided that each of EPE and NMSU agrees, subject to its reasonable discretion, to accept those conditions, modifications or such partial approval, and further provided that the NMPRC's approval, disapproval, conditions on, substantial modifications to, or partial approval of EPE requests other than for Agreement Approval pursuant to NMSA 1978, section 62-6-26 and EPE's Rate No. 30 will not be considered by either Party to be a condition, modification, or partial approval of this Agreement.

(b) If the NMPRC denies approval of the Agreement, then this Agreement will automatically terminate 10 days after the date of such action by the NMPRC and be of no further force or effect except as set forth below.

(c) If Agreement Approval is issued as described in clause (ii) of Section 8.2.04(a), then the Parties must meet and confer no later than 15 days after the date of the Agreement Approval regarding whether EPE and NMSU will elect to amend this Agreement to address any conditions or modifications or not to accept any partial or conditioned approval or modification to this Agreement as a result of the Agreement Approval. If the Parties are unable to mutually agree on any amendments to this Agreement to address such Agreement Approval, then this Agreement will automatically terminate 10 days after the date on which the Parties conferred and be of no further force or effect except as set forth below. If the Parties fail, for any reason, to meet and confer within 15 days after the date of Commission issuance of the Agreement Approval, then this Agreement will terminate on the 15th day after the date of Commission issuance of the Agreement Approval and be of no further force or effect except as set forth below.

ARTICLE 9. ASSIGNMENT.

9.1. No Assignment Without Consent.

Except as provided in this Article 9, neither Party may sell, transfer or assign this Agreement, in whole or in part, and EPE may not sell, transfer, or assign any interest in the Project, in whole or in part, without the prior written consent of the other Party which consent will not be unreasonably withheld, delayed, or conditioned; provided (i) at least 60 days' prior notice of any such assignment must be given to the other Party; (ii) any assignee must in writing expressly assume the assignor's obligations hereunder; and (iii) before this Agreement is assigned by EPE, EPE or the assignee must first obtain such approvals as may be required by Applicable Laws.

9.2. Assignment to Lenders.

If EPE assigns this Agreement to its Lenders, EPE will be responsible for NMSU's reasonable costs associated with the review, negotiation, execution, and delivery of documents in connection with such assignment, including reasonable attorneys' fees.

9.3. Assignment Without Consent is Null and Void.

Any assignment of any interest in the Project or in this Agreement made without fulfilling the requirements of this Agreement will be null and void and will constitute an Event of Default pursuant to Article 9.

ARTICLE 10. REPRESENTATIONS AND WARRANTIES.

Each Party represents and warrants that it will use reasonable diligence to maintain and otherwise ensure the safety of the facilities under its ownership or control that are used in provisioning or receiving the service to be rendered under this Agreement.

ARTICLE 11. INDEMNIFICATION AND INSURANCE.

11.1. No Indemnification.

11.1.01 Each Party will be solely responsible for the liability arising from personal injury, including death, or damage to property arising from the acts or failure to act of the respective Party or of its officials, agents, and employees pursuant to this Agreement. NMSU's liability will be strictly limited by and this Agreement will give full effect to the intent of the Tort Claims Act, section 41-4-1 et seq., NMSA 1978, and any amendments thereto.

11.1.02 NMSU will not indemnify for the acts or omissions of any third parties, including its students except to the extent that any student may be employed by NMSU (*e.g.*, student teaching assistant), in connection with the activities contemplated by Section 2.1 hereof and such third party's acts or omissions fall within the scope of the exceptions set forth in sections 41-4-5 through 41-4-12 NMSA 1978.

11.2. Insurance.

11.2.01 *NMSU Insurance.* NMSU agrees to maintain coverage under the New Mexico Public Liability Fund as reflected in the Certificate of Coverage, which is attached and incorporated by reference to this Agreement as Exhibit C. The Certificate of Coverage will be applied giving full effect to the intent of the Tort Claims Act, section 41-4-1 et seq., NMSA 1978, and any amendments thereto.

11.2.02 *EPE Insurance.* EPE represents and warrants that it has in effect and will continue in effect a general commercial liability insurance coverage as agreed in the Sublease article 17, and will provide NMSU with a certificate or certificates of insurance, listing Arrowhead Center, Inc, and NMSU as additional insureds, evidencing that insurance policies required by this Section, issued by an insurance company(s) recognized as an authorized carrier in the State of New Mexico

with a rating reasonably acceptable to NMSU (generally Fitch B++ or equivalent). The certificates must be applicable for the full Term and must be acceptable to NMSU in both form and content.

11.2.03 NMSU will not and does not agree to any waiver of subrogation rights.

ARTICLE 12. DEFAULT.

12.1. EPE Event of Default.

Any one or more of the following will constitute an EPE Event of Default under this Agreement, provided that such will not be considered an EPE Event of Default while the event at issue is the subject of dispute resolution pursuant to Article 16 and such is agreed to by both Parties:

12.1.01 EPE's failure to comply with any material provision of this Agreement, including its Exhibits, where such failure to comply continues for 30 days after delivery of notice thereof by NMSU to EPE. If such default is not reasonably susceptible to cure within such 30-day period, EPE will have such longer period as may be approved in writing in advance by NMSU to cure such default so long as EPE commences curing such default within the initial 30-day period and diligently prosecutes such cure to completion in accordance with a schedule approved in writing by NMSU;

12.1.02 A default by EPE under the Sublease that results in the termination of the Sublease; and

12.1.03 It is found, after notice and hearing by NMSU, or its duly authorized representative, that gratuities in the form of entertainment, gifts, or otherwise, were offered or given by EPE, or any agent or representative of EPE, to any officer or employee of NMSU with a view toward procuring an agreement or procuring favorable treatment with respect to the awarding or amending, or the making of any determinations with respect to the performing of such agreement; provided that the existence of the facts upon which NMSU or its duly authorized representative makes such finding will be an issue and may be reviewed in any competent court. NMSU will be entitled to pursue the same remedies against EPE as it could pursue in the event of any other Event of Default and any other damages to which it may be entitled by law.

12.2. NMSU Event of Default.

The following will constitute an NMSU Event of Default under this Agreement, provided that such will not be considered an NMSU Event of Default while the event at issue is the subject of dispute resolution pursuant to Article 16 and such is agreed to by both Parties:

12.2.01 NMSU's failure to comply with any provision of this Agreement, where such failure to comply continues for 30 business days after delivery of notice thereof by EPE to NMSU. If such default is not reasonably susceptible to cure within such 30-day period, NMSU may have such longer period as may be approved in writing in advance by EPE to cure such default so long as NMSU commences curing such default within the initial 30-day period and diligently prosecutes such cure to completion in accordance with a schedule approved in writing by EPE.

12.2.02 A default by NMSU under the Sublease that results in the termination of the Sublease.

ARTICLE 13. EARLY TERMINATION.

13.1. Circumstances for Early Termination.

This Agreement may be terminated prior to the end of the Term in the following circumstances:

13.1.01 NMSU may terminate this Agreement upon delivery of a Default Termination Notice, without any cost or liability to NMSU, if an EPE Event of Default exists. A Default Termination Notice will be effective as of the date specified therein, which will be at least seven but not more than 30 days after its receipt by EPE.

13.1.02 EPE may terminate this Agreement upon delivery of a Default Termination Notice to NMSU without any cost or liability to EPE, if an NMSU Event of Default exists. A Default Termination Notice will be effective as of the date specified therein, which will be at least seven but not more than 30 days after its receipt by EPE.

13.2. Termination Notices.

13.2.01 *Default Termination Notice.* Notwithstanding any other provision of this Agreement, unless the Parties agree in writing to continue this Agreement in full force and effect, this Agreement will terminate upon termination or non-renewal of the Sublease in accordance with the terms thereof, subject to EPE's continuing obligations as defined in the Sublease and EPE's Early Termination Obligations pursuant to Section 13.3.

13.2.02 *Notice of Early Termination.* If either Party provides a Notice of Early Termination under this Agreement:

(a) The terminating Party will provide notice to the other Party not less than 180 days in advance of its intent to terminate.

(b) All bills due to EPE by NMSU will be due and payable pursuant to Article 5.

13.3. Early Termination Obligations.

13.3.01 In the event this Agreement is terminated for any reason, NMSU will continue to take Grid Resource Power from EPE pursuant to Rate No. 26.

13.3.02 *NMSU Early Termination Payment.*

(a) *Amortization of Project Costs.* The initial capital costs of the PV System are amortized over a period of 30 years, shown in the Cancellation Schedule attached hereto as Exhibit B.

(b) If (i) NMSU terminates this Agreement prior to the 30th year of the Term other than for EPE Event of Default or breach of the Agreement, (ii) NMSU terminates the

Sublease other than for breach of the Sublease, (iii) NMSU modifies the Sublease in such a manner that EPE is unable to operate the Project in a commercially reasonable manner; or (iv) EPE terminates this Agreement due to an NMSU Event of Default or breach of the Agreement then NMSU will pay EPE the unamortized costs in the amounts shown in the Cancellation Schedule. Such payment, however, will be conditioned on EPE not obtaining the necessary regulatory approvals to recover remaining costs in customer rates or EPE not securing a buyer in accordance with Section 13.3.04. Payments under this section will be due six months following the later of (i) the date that EPE determines that it is unable to recover the remaining costs in customer rates, (ii) the effective date of NMSU's termination contemplated by this Section 13.3.02(b), or (iii) the expiration of the period of time EPE has to secure an alternative provider under Section 13.3.04. In no case will the date that EPE determines it is unable to recover the remaining costs in customer rates be sooner than (i) the effective date of NMSU's termination contemplated by this Section 13.3.02(b), or (ii) the expiration of the period of time EPE has to secure an alternative provider under Section 13.3.04.

13.3.03 *EPE Early Termination Payment.*

(a) If EPE terminates this Agreement prior to the 30th Year of the Term other than for NMSU Event of Default or breach of the Agreement, and only if EPE fails to obtain an alternative provider as provided in Section 13.3.04, then EPE will pay NMSU the damages owed to NMSU in accordance with this Section 13.3.03(b) no later than six months after EPE has failed to secure an alternative provider.

(b) *Damages to NMSU for EPE Early Termination.* Damages owed to NMSU upon EPE's early termination or NMSU's termination of the Agreement due to an EPE Event of Default may include: (1) any actual damages and (2) recovery of the value of the research and educational activities NMSU is conducting and would have conducted with the Project but for the Early Termination, such value to be determined under the circumstances and expectations at the time.

13.3.04 *Alternative Provider.* If either Party terminates this Agreement in accordance with Article 13 for a reason other than a NMSU Event of Default, then EPE will use commercially reasonable efforts to secure a buyer for the Project that will agree to the key terms of the Agreement and is approved by both Parties within one year following the receipt by the non-terminating Party of a Notice of Early Termination. The means of locating such a buyer and the terms and conditions of a sale under this Section 13.3.04 will be at the sole discretion of EPE. If a buyer is not able to be secured within the one-year period, EPE may request from NMSU additional time to secure a buyer, and such request must not be unreasonably withheld.

13.4. Obligations Following Termination.

Applicable provisions of this Agreement will continue in effect after termination, including Early Termination, to the extent necessary to enforce or complete the duties, obligations, or responsibilities of the Parties arising prior to termination.

ARTICLE 14. REMEDIES.

14.1. Specific Performance.

If an Event of Default exists hereunder, then the non-defaulting Party will have the right to enforce specific performance by the defaulting Party of its obligations under this Agreement in any state or federal court of competent jurisdiction in addition to all other rights and remedies available to the Parties.

14.2. Separate and Cumulative.

The specified remedies of the Parties under this Agreement are separate and cumulative and are not intended to be exclusive of any other remedies to which each Party may be lawfully entitled in case of any breach or threatened breach by a Party of any provision of this Agreement.

ARTICLE 15. FORCE MAJEURE.

15.1. General.

In the event either party is rendered unable, wholly or in part, by force majeure to carry out its obligations under this Agreement, it is agreed that upon giving notice and full particulars of such force majeure to the other Party within 48 hours after occurrence of the cause relied on, in writing by registered or certified mail, then the obligations of the other party, so far as they are affected by such force majeure, may be suspended from the inception of and during the continuance of any inability so caused. The party claiming force majeure must diligently act to remedy all such force majeure events as expeditiously as reasonably possible. The term of this Agreement may not be deemed to be lengthened or extended by any period of such force majeure.

15.2. Labor Disputes.

It is understood and agreed that the settlement of any labor dispute, strike or lockout will be entirely within the discretion of the affected Party and that nothing in this Agreement requires the affected Party to settle such disputes on terms and conditions it does not believe to be in its best interest.

ARTICLE 16. DISPUTES.

16.1. Parties to Negotiate.

If a dispute should arise pursuant to this Agreement, the Parties agree to first attempt to resolve the dispute using unassisted negotiation techniques (*i.e.*, without the assistance of a neutral third party). Either Party may request in writing that unassisted negotiations commence. As part of the unassisted negotiation, the Parties may consider employing joint fact-finding, if material factual disputes are involved, and may use other early resolution techniques appropriate to the circumstances. If the dispute involves material issues of fact, the Parties may employ a neutral third party to provide a confidential evaluation of the issues of fact.

16.2. ADR Procedure.

If the dispute is not resolved by unassisted negotiation within 60 days after the request for unassisted negotiations, and the Parties do not mutually agree to continue the unassisted negotiations, the Parties must employ the following ADR procedures involving nonbinding mediation of the dispute by a neutral third party.

16.2.01 The ADR procedures employed must include a confidential evaluation of both the facts and the law and the issuance of confidential recommendations by the neutral third party within 30 days of the initiation of ADR procedures by written demand of a Party.

16.2.02 The mediation must be conducted in Las Cruces, New Mexico, in accordance with the Commercial Arbitration Rules of the American Arbitration Association in effect on the date that a Party gives notice of its demand under this Article 16.

16.2.03 The submitting Party must submit such dispute to ADR by providing a written demand for ADR to the other Party.

16.2.04 The Parties must select a single neutral mediator with significant contract resolution experience and experience and understanding of public utility transactions in the state of New Mexico. If the Parties cannot agree on a single neutral mediator within 15 days after the written demand for ADR is provided, then the mediator will be selected pursuant to the Commercial Arbitration rules of the American Arbitration Association in effect on the date such selection is to be made.

16.2.05 The mediator must provide his/her recommendation for resolution to each Party within 30 days following initiation of the mediation.

16.2.06 Each Party must bear its own cost associated with the mediation.

16.3. Other Remedies.

Notwithstanding any effort to resolve the dispute in accordance with this Article 16, each Party retains all rights to pursue any and all remedies to which it is lawfully entitled.

ARTICLE 17. NOTICES AND APPROVALS

All notices and approvals required or permitted to be given under this Agreement must be given in writing by personal delivery or by certified mail, postage prepaid, and addressed to the proper Party at the following addresses:

Immediate Notice of Outage to NMSU:	**NMSU Central Utility Plant (24 hour)** **575-646-7114**
Notice to EPE:	**El Paso Electric Company** **Attn: Business Development Department** **100 N. Stanton St.**

	El Paso, TX 79901
With a copy to:	**El Paso Electric Company** **Attn: Office of General Counsel** **100 N. Stanton St.** **El Paso, TX 79901**
Notice to NMSU:	**NMSU Facilities and Services.** **MSC 3545** **PO Box 30001** **Las Cruces, NM 88003-8001**
With a copy to:	**Office of General Counsel** **New Mexico State University** **P.O. Box 30001 MSC 3UGC** **Las Cruces, NM 88003**
And: "Installation Point of Contact"	**Executive Director, Arrowhead Park** **MSC 3ARP** **PO Box 30001** **Las Cruces, NM 88003-8001**
Notice to any Approved Mortgagee:	**US Bank** **Attn: Bond Trustee** **One Federal Street, 3rd Floor** **Boston, MA 02110**

ARTICLE 18. MISCELLANEOUS.

18.1. Waiver.

A waiver by either Party of any one or more defaults or obligations by the other Party in the performance of any provision of this Agreement will not operate as a waiver of any future default or obligation, whether of like or different character. No waiver by either Party of any of the provisions of this Agreement will be effective unless expressed in writing and signed by an authorized representative of the waiving Party.

18.2. Disclaimer of Certain Third-Party Beneficiary Rights.

This Agreement is for the benefit of the Parties only. No rights or benefits are conferred to any third party by or through this Agreement.

18.3. Relationship of the Parties.

Notwithstanding anything contained herein to the contrary, it is the intention of the Parties that each Party will remain separate and distinct entities, and this Agreement will not affect any merger of the Parties.

18.4. Severability.

The provisions of this Agreement are severable. If any provision is set aside or found to be invalid by any court or Governmental Authority of competent jurisdiction, the other provisions will remain in full force and effect.

18.5. Amendment.

Any change, modification, amendment or alteration of this Agreement must be in writing and signed by authorized representatives of the Parties thereto.

18.6. Binding Effect.

This Agreement will not be binding upon either Party unless and until it has been duly executed in writing by both Parties.

18.7. Headings.

The brief headings or titles identifying and preceding "Article" and "Section" are merely for purposes of identification, convenience, and ease of reference, and will not be used by way of limitation of this Agreement.

18.8. Counterparts.

This Agreement is executed in multiple counterparts, each of which is deemed an original of equal dignity with the other, and all of which are deemed one and the same instrument.

18.9. Governing Law.

This Agreement, and the performance thereof, will be construed in accordance with the laws of the State of New Mexico.

18.10. Forum and Venue of Law.

In any lawsuit or legal dispute arising from the operation of this Agreement, EPE agrees that the laws of the State of New Mexico will govern. Venue will be in the 3rd Judicial District Court of New Mexico in Doña Ana County, New Mexico. Any claim under federal law will be in the Federal Judicial District Court of New Mexico.

18.11. Further Assurances.

Each Party will provide such information, execute and deliver any instruments and documents and to take such other actions as may be reasonably requested by the other Party to give full effect to this Agreement and to carry out the intent of this Agreement.

18.12. Complete Agreement.

This written instrument, together with the provisions of other documents that are expressly incorporated by reference by the terms of this Agreement, embodies the entire agreement between the Parties regarding the matters provided herein. In the event of any inconsistency between the terms of this Agreement and any provision that has been incorporated by reference, the terms of this Agreement will govern. There are no understandings or agreements, verbal or otherwise, between the Parties except as expressly set forth herein.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized officers, effective as of the Effective Date.

EL PASO ELECTRIC COMPANY

By: _____

Name: ADRIAN J. RODRIGUEZ

Title: INTERIM CHIEF EXECUTIVE OFFICER

NEW MEXICO STATE UNIVERSITY

By: _____

Name: DAN E ARVIZU

Title: CHANCELLOR

APPROVED AS TO FORM

EXHIBIT A
RETAIL ELECTRIC SERVICE

This Exhibit A is for retail electric service delivered by EPE to NMSU. Capitalized terms not defined in Section 8.3 of this Exhibit A will have the meanings set forth in the Agreement.

ARTICLE 1. MONTHLY RATE FOR GRID RESOURCE POWER:

1.1. Grid Resource Power delivered by EPE to NMSU under the Agreement will be provided in accordance with EPE's approved tariffs.

1.2. NMSU will be billed for its metered consumption from the EPE system at the Grid Resource Power Point of Delivery based on the rates established in Rate No. 26, which rates may be adjusted from time to time as approved by the NMPRC.

1.3. The Project Power Point of Delivery is located "behind-the-meter" with respect to the Grid Resource Power Point of Delivery. The Grid Resource Power and the Project Power will be aggregated monthly as the billing determinants for purposes of billing the Rate No. 26 Demand Charge and the Rate No. 26 Energy Charges included in base rates, as described in Sections 1.4 and 1.5.

1.4. The Rate No. 26 Demand Charge included in base rates will apply to the highest 30-minute combined integrated kW load, which is the aggregate of 1) the highest kW load measured at the Grid Resource Power Point of Delivery, and 2) Project Power kW load delivered to the Project Power Point of Delivery, as measured in the same single 30-minute interval.

1.5. The Rate No. 26 Energy Charges included in base rates will apply to the aggregated 1) Grid Resource Power kWh monthly billing determinants and 2) the Project Power kWh monthly billing determinants by time-of-use period, as applicable.

1.6. All other approved riders, factors, and surcharges as currently in effect under Rate No. 26 and all rates referenced as applicable under Rate No. 26 will be assessed. New Mexico Rate No. 18 Fuel and Purchased Power Cost Adjustment Clause ("FPPCAC") and New Mexico Rate No. 38 Renewable Portfolio Standard Cost Rider ("RPS Rider") will be applied to Grid Resource Power monthly billing determinants. New Mexico Rate No. 17 Efficient Use of Energy Recovery Factor and New Mexico Rate No. 41 Federal Tax Credit Factor will be applied as set forth in each respective tariff filed with the NMPRC.

1.7. NMSU and EPE agree that the metered energy (kWh) and demand (kW) monthly billing of the Grid Resource Power and the Project Power will be aggregated for purposes of cost allocation and rate design in any future base rate proceeding.

ARTICLE 2. PROJECT ENERGY CHARGE:

2.1. On and after the Commercial Operation Date, Project Power delivered by EPE to NMSU will be provided in accordance with the Agreement and pursuant to the provisions of this Exhibit A.

2.2. If the Commercial Operation Date falls outside of the first day of a regularly scheduled billing period under Rate No. 26, the first invoice for Project Power, which includes both the Project Energy Charge and the Project Credit described in Article 6 of this Exhibit A, will be prorated to account for the partial billing period.

2.3. A Project Energy Charge of $0.08289 per kWh will be assessed for all Project Power. The Project Energy Charge is inclusive of all benefits accruing to EPE as a result of any and all applicable tax or other available incentives, accounting treatments, or other incentives applicable to this project that are in effect before the start date of the Agreement. EPE will receive these incentives after Agreement award. The Energy Charge will not be adjusted as a result of EPE's receipt, or lack thereof, of any such incentive after Agreement award.

2.4. The Project Energy Charge will not escalate for the duration of the Agreement.

2.5. There is no monthly customer-meter charge.

2.6. There is no monthly minimum charge.

ARTICLE 3. DELIVERY SCHEDULE:

3.1. EPE anticipates beginning delivery of Project Power to NMSU no later than 11 months after receipt of NMPRC Approval. Prior to Commercial Operation, EPE will deliver and bill all electrical power to NMSU, including the Test Power, under Rate 26.

ARTICLE 4. TERMS AND CONDITIONS FOR PROJECT ENERGY CHARGE:

4.1. The Project Energy Charge established in Section 2.3 will be in effect for the Term, unless otherwise agreed upon by both parties, in accordance with the terms and conditions of the Agreement.

4.2. At the mutual consent of both parties, the Project Energy Charge may be revised to reflect changes in the life cycle cost of the Project with the removal and replacement of battery storage components in approximately year 16 of the Project's life cycle.

4.3. Any Agreement amendment will be subject to NMPRC review and approval.

ARTICLE 5. TEST POWER:

5.1. Any Test Power that is delivered to the Project Power Point of Delivery prior to the Commercial Operation Date will be billed pursuant to Article 3 above.

ARTICLE 6. PROJECT CREDITS:

6.1. During the Summer Months, a capacity credit will be provided to NMSU, equal to the maximum metered 30-minute output of the Project, as measured during the hours between 12:00 pm to 6:00 pm (MPT), Monday through Friday, multiplied by the Avoided Capacity Credit, which is initially set at the avoided capacity cost used to determine the cost effectiveness of EPE's most recently NMPRC-approved Energy Efficiency and Load Management Plan, NMPRC Case No. 18-00116-UT. Avoided Capacity Credits for calendar years applicable to the Term but not included in Attachment 1, will utilize the amount projected for calendar year 2045. The Avoided Capacity Credits applicable for each calendar year of the Term are provided in Attachment 1 to this Exhibit A and will not be adjusted during the Term except as part of the Periodic Review.

6.2. An energy credit will be provided to NMSU for all Project Power delivered to the Project Power Point of Delivery during the billing cycle multiplied by the non-fuel variable energy rate, currently calculated as $0.007255 per kWh, based on the non-fuel variable energy cost of supplying power embedded in Rate No. 26 charges ("Energy Credit"). The Energy Credit is subject to change in EPE's future base rate proceedings.

ARTICLE 7. PERIODIC REVIEW OF PROJECT ECONOMICS:

7.1. It is the expectation of both NMSU and EPE that the net economic impact to NMSU of the Project will be net cost neutral or positive over the Term. NMSU and EPE expressly agree that the rates and credits included in this Exhibit A provide for an expected net cost neutral or positive impact on a NPV basis to NMSU at the conclusion of the Term based on the forecasts agreed to by both Parties herein.

7.2. NMSU and EPE agree to meet no less than once every five years on the anniversary of the Commercial Operation Date, or at another such time as mutually agreed to by both Parties, to review the net cash flow performance of the Project and to adjust, if necessary, the Avoided Capacity Credit to ensure that the expected NPV of the Project will be a net cost neutral or positive impact to NMSU over the Term ("Periodic Review").

7.3. For purposes of reviewing and adjusting rates and credits in the analysis of the net cost neutral or positive target, the Parties agree to the following:

7.3.01 Attachment 2 to this Exhibit A represents the expected cash flow economic model to be used to determine the net impact to NMSU.

7.3.02 For purposes of the updated NPV calculations, the Historical Period is defined as the term of the Project up to the year in which the NPV review is performed.

7.3.03 Actual Project Power and the actual Summer Month's Project Contribution will be utilized for the Historical Period, and an updated forecast for the remaining Term of the Project may be used if the prior forecast is determined to be no longer representative of future Project output.

7.3.04 The Project Energy Charge will not change over the Term except to the extent Project costs are adjusted in year 16 of the Project's life cycle for battery replacement pursuant to Section 4.2 of this Exhibit A.

7.3.05 Actual RPS Rider, FPPCAC, and Energy Credit rates will be utilized for the Historical Period, and an updated forecast for the remaining Term of the Project may be used if the prior forecast is determined to be no longer representative of future rate and rider charges.

7.3.06 Avoided Capacity Credits from Attachment 1 or the most recently updated Attachment 1 to this Exhibit A developed by EPE and NMSU in accordance with any previous Periodic Review will represent the updated forecast of Avoided Capacity Credits for the remaining Term.

7.3.07 Based on Historical Period and forecasted Project production, rates, and credits, NPV of cash flows for the entire Term will be recalculated.

7.3.08 In the event the expected NPV of cash flows for the Project over the Term is determined to be negative, calculated as of the Commercial Operation Date, during any Periodic Review, Attachment 1 to this Exhibit A will be scaled for the remaining Term to maintain an expected net cost neutral impact to NMSU.

7.3.09 Six months after the Term and decommissioning of the Project, EPE will provide a Balance of Agreement Payment to NMSU, if necessary. For the avoidance of doubt, if the Project over the Term is cost neutral or positive to NMSU, EPE will not owe a Balance of Agreement Payment to NMSU.

ARTICLE 8. ALL OTHER TERMS AND CONDITIONS:

8.1. In all other respects, EPE and NMSU agree to be bound by and comply with all terms and conditions of EPE's New Mexico tariffs, except to the extent those terms and conditions are inconsistent with the express terms and conditions set forth in this Exhibit A as it is approved by the NMPRC.

8.2. The rates calculated as listed above will be in effect for the Term, unless otherwise agreed upon by both parties to the Agreement, in accordance with the terms and conditions of the Agreement.

8.3. Definitions.

8.3.01 "**Avoided Capacity Credit**" has the meaning given in Section 6.1 of this Exhibit A.

8.3.02 **"Balance of Agreement Payment"** means an amount due to NMSU that is the difference between zero and the actual net cost of the Project to NMSU, calculated on a NPV basis as of the Commercial Operation Date, at the end of the Term.

8.3.03 **"Energy Credit"** has the meaning given in Section 6.2 of this Exhibit A.

8.3.04 **"Energy Efficiency and Load Management Plan"** means that application and related reports filed with the NMPRC in accordance with section 17.7.2 NMAC.

8.3.05 **"FPPCAC"** has the meaning given in Section 1.6 of this Exhibit A.

8.3.06 **"Historical Period"** has the meaning given in Section 7.3.02 of this Exhibit A.

8.3.07 **"NPV"** means net present value.

8.3.08 **"Periodic Review"** has the meaning given in Section 7.2 of this Exhibit A.

8.3.09 **"Project Credit"** means the combination of the Energy Credit and the Avoided Capacity Credit.

8.3.10 **"Project Energy Charge"** means a charge for Project Power on a per kWh basis as described in Article 2 of this Exhibit A.

8.3.11 **"Rate 26 Demand Charge"** means the demand charge in Rate 26.

8.3.12 **"Rate 26 Energy Charges"** means the energy charges in Rate 26.

8.3.13 **"RPS Rider"** has the meaning given in Section 1.6 of this Exhibit A.

8.3.14 **"Summer Month's Contribution"** means the maximum metered 30-minute output of the Project during each Summer Month as measured between the hours of 12:00 pm to 6:00 pm (MPT), Monday through Friday.

ATTACHMENT 1
AVOIDED CAPACITY CREDIT TABLE

Table 86: Avoided Costs

Year	Avoided Energy ($/kWh)	Avoided Capacity ($/kW)
2019	$0.0144	$96.69
2020	$0.0159	$98.64
2021	$0.0163	$100.62
2022	$0.0167	$102.64
2023	$0.0158	$104.71
2024	$0.0158	$106.82
2025	$0.0161	$108.78
2026	$0.0171	$110.77
2027	$0.0174	$112.81
2028	$0.0178	$114.88
2029	$0.0182	$117.11
2030	$0.0185	$119.39
2031	$0.0189	$121.72
2032	$0.0193	$124.09
2033	$0.0197	$126.51
2034	$0.0202	$128.97
2035	$0.0206	$131.49
2036	$0.0210	$134.05
2037	$0.0215	$136.66
2038	$0.0219	$139.32
2039	$0.0224	$142.03
2040	$0.0229	$144.80
2041	$0.0234	$147.62
2042	$0.0239	$150.50
2043	$0.0244	$153.43
2044	$0.0249	$156.42
2045	$0.0254	$159.47

ATTACHMENT 2
TERM NET PRESENT VALUE

ATTACHMENT 1
Term Net Present Value (FPPCAC Energy Cost)

A	B	C	D	E	F= C*E	G	H=C*G	I	J=C*I	K	L=C*K	M	N=D*M	O=F+H+J+L+N	P
Yr	Actual / Estimate	Annual Project Power kWh	Total Peak Project Contribution kW	Project Power Rate $/kWh	Project Costs $	RPS Rider $/kWh	Avoided RPS Cost $	Fuel Credit Rate $/kWh	Avoided Fuel Cost $	Base Rate Non-Fuel Variable Cost $/kWh	Base Rate Non-Fuel Variable Credit $	Avoided Capacity Cost $/kW-yr	Avoided Capacity Credit $	Net Cost $	Net Present Value $
1	Estimate	8,764,634	3,604.80	$ 0.08289	$ 726,501	$ 0.010154	$ (88,996)	$ 0.01926	$ (168,789)	$ 0.007255	$ (63,591)	$ 98.64	$ (355,578)	$ 49,547	$ 46,314
2	Estimate	8,723,550	3,587.90	0.08289	723,095	0.010154	(88,579)	0.01959	(170,859)	0.007255	(63,293)	100.62	(361,015)	39,349	34,381
3	Estimate	8,662,044	3,562.61	0.08289	717,997	0.010154	(87,954)	0.01992	(172,548)	0.007255	(62,846)	102.64	(365,666)	28,982	23,671
4	Estimate	8,599,792	3,537.00	0.08289	712,837	0.010154	(87,322)	0.02026	(174,223)	0.007255	(62,395)	104.71	(370,360)	18,537	14,152
5	Estimate	8,538,704	3,511.88	0.08289	707,773	0.010154	(86,702)	0.02060	(175,931)	0.007255	(61,951)	106.82	(375,139)	8,040	5,744
6	Estimate	8,477,951	3,486.89	0.08289	702,737	0.010154	(86,085)	0.02096	(177,655)	0.007255	(61,511)	108.78	(379,304)	(1,818)	(1,213)
7	Estimate	8,417,561	3,462.05	0.08289	697,732	0.010154	(85,472)	0.02131	(179,395)	0.007255	(61,073)	110.77	(383,492)	(11,700)	(7,295)
8	Estimate	8,357,591	3,437.39	0.08289	692,761	0.010154	(84,863)	0.02168	(181,151)	0.007255	(60,637)	112.81	(387,772)	(21,662)	(12,625)
9	Estimate	8,297,063	3,412.49	0.08289	687,744	0.010154	(84,248)	0.02204	(182,900)	0.007255	(60,198)	114.88	(392,027)	(31,631)	(17,232)
10	Estimate	8,237,954	3,388.18	0.08289	682,844	0.010154	(83,648)	0.02242	(184,695)	0.007255	(59,769)	117.11	(396,790)	(42,059)	(21,418)
11	Estimate	8,179,098	3,363.98	0.08289	677,965	0.010154	(83,051)	0.02280	(186,500)	0.007255	(59,342)	119.39	(401,625)	(52,552)	(25,016)
12	Estimate	8,120,683	3,339.95	0.08289	673,123	0.010154	(82,457)	0.02319	(188,319)	0.007255	(58,919)	121.72	(406,539)	(63,110)	(28,081)
13	Estimate	8,062,673	3,316.09	0.08289	668,315	0.010154	(81,868)	0.02359	(190,158)	0.007255	(58,498)	124.09	(411,494)	(73,703)	(30,654)
14	Estimate	8,004,145	3,292.02	0.08289	663,464	0.010154	(81,274)	0.02399	(191,995)	0.007255	(58,073)	126.51	(416,473)	(84,352)	(32,794)
15	Estimate	7,946,937	3,268.49	0.08289	658,722	0.010154	(80,693)	0.02440	(193,866)	0.007255	(57,658)	128.97	(421,537)	(95,032)	(34,535)
16	Estimate	7,877,797	3,240.05	0.08289	652,991	0.010154	(79,991)	0.02481	(195,456)	0.007255	(57,156)	131.49	(426,035)	(105,648)	(35,888)
17	Estimate	7,842,921	3,225.71	0.08289	650,100	0.010154	(79,637)	0.02523	(197,900)	0.007255	(56,903)	134.05	(432,407)	(116,748)	(37,070)
18	Estimate	7,787,579	3,202.95	0.08289	645,512	0.010154	(79,075)	0.02566	(199,853)	0.007255	(56,502)	136.66	(437,715)	(127,632)	(37,882)
19	Estimate	7,745,425	3,185.61	0.08289	642,018	0.010154	(78,642)	0.02610	(202,156)	0.007255	(56,196)	139.32	(443,819)	(138,800)	(38,508)
20	Estimate	7,676,439	3,157.24	0.08289	636,300	0.010154	(77,947)	0.02655	(203,771)	0.007255	(55,695)	142.03	(448,423)	(149,536)	(38,779)
21	Estimate	7,621,722	3,134.73	0.08289	631,765	0.010154	(77,391)	0.02700	(205,764)	0.007255	(55,298)	144.80	(453,909)	(160,598)	(38,930)
22	Estimate	7,567,326	3,112.36	0.08289	627,256	0.010154	(76,839)	0.02746	(207,776)	0.007255	(54,904)	147.62	(459,447)	(171,710)	(38,908)
23	Estimate	7,513,307	3,090.14	0.08289	622,778	0.010154	(76,290)	0.02793	(209,809)	0.007255	(54,512)	150.50	(465,067)	(182,900)	(38,739)
24	Estimate	7,458,689	3,067.68	0.08289	618,251	0.010154	(75,736)	0.02840	(211,827)	0.007255	(54,116)	153.43	(470,674)	(194,101)	(38,428)
25	Estimate	7,405,448	3,045.78	0.08289	613,838	0.010154	(75,195)	0.02888	(213,899)	0.007255	(53,729)	156.42	(476,421)	(205,407)	(38,013)
26	Estimate	7,352,420	3,023.97	0.08289	609,442	0.010154	(74,656)	0.02938	(215,985)	0.007255	(53,345)	159.47	(482,233)	(216,777)	(37,499)
27	Estimate	7,299,792	3,002.33	0.08289	605,080	0.010154	(74,122)	0.02988	(218,096)	0.007255	(52,963)	159.47	(478,781)	(218,882)	(35,393)
28	Estimate	7,247,528	2,980.83	0.08289	600,748	0.010154	(73,591)	0.03039	(220,216)	0.007255	(52,584)	159.47	(475,353)	(220,997)	(33,403)
29	Estimate	7,194,707	2,959.11	0.08289	596,369	0.010154	(73,055)	0.03090	(222,338)	0.007255	(52,200)	159.47	(471,889)	(223,113)	(31,522)
30	Estimate	7,143,164	2,937.91	0.08289	592,097	0.010154	(72,532)	0.03143	(224,503)	0.007255	(51,826)	159.47	(468,508)	(225,272)	(29,750)

From 15-00127-UT

Non-Fuel Energy-Related Costs ('000's)	$	12,134	
Test Period Determinants (MWh)		1,607,587	
TCJA Credit in effect		3.8756%	
Non-Fuel Variable Cost $/kWh	$	0.00726	

Discount Rate 6.98%
NPV: ($635,314)

Description:

A Year of estimate
C Estimated annual energy production from NMSU Project, including the operation of the battery. Assumes annual average degradation of 0.7% per year.
D Estimated maximum output of NMSU Project during on-peak periods, in the months of May through October. Based on estimated annual production from Column C.
E Monthly Rate for Project Power, rate per kWh of production (i.e., levelized cost of energy).
G RPS Rider No. 38, as of January 1, 2019.
I FPPCAC Rider No. 18, monthly weighted average rate per kWh, based on actual rates billed in 2018 at primary voltage level. Includes an annual escalator of 1.7%.
K Non-Fuel Variable Cost from 15-00127-UT, system average rate adjusted for the Federal Tax Cuts and Jobs Act of 2017.
M Capacity Generation Credit based on projected Avoided Capacity Costs in EE/LM Plan filing approved in 18-00116-UT. Starting value as projected for 2020.
O Estimated Net Cost to NMSU
P Projected Net Present Value (in Year 0), at a discount rate of 6.98% (i.e., EPE's WACC)

ATTACHMENT 3
RATE 26

JUN 20 '15 PM 3:17

EL PASO ELECTRIC COMPANY

SEVENTH REVISED RATE NO. 26
CANCELLING SIXTH REVISED RATE NO. 26

STATE UNIVERSITY SERVICE RATE

APPLICABILITY:

This rate schedule is available to any public college or university's main campus for lighting, power and heating service. The Customer and the Company will determine whether a Customer qualifies for this rate schedule. A Customer qualifies for this rate schedule if the expected monthly demand will exceed 6,000 kilowatts (kW). A contract may be required in order to take service under this rate schedule.

TERRITORY:

Areas served by the Company in Dona Ana, Sierra, Otero and Luna Counties.

TYPE OF SERVICE:

Service available under this rate schedule will be determined by the Company and will be three phase at a standard Company approved voltage. All service will be taken at a single point of delivery designated by the Company.

MONTHLY RATES:

Customer Charge (per meter per month)	$135.00

Demand and Energy Charges	Summer (June through September)	Winter (October through May)
Demand Charge per Billing kW	$16.71	$8.85
Energy Charge per kWh: On-Peak	$0.09124	------
Energy Charge per kWh: Off Peak	$0.00428	$0.00428

The On-Peak Period shall be from 12:00 P.M. to 6:00 P.M, Mountain Daylight Time, Monday through Friday, for the months of June through September.

The Off-Peak Period shall be all other hours of the week not covered in the On-Peak Period.

MONTHLY MINIMUM CHARGE:

The Customer Charge plus applicable Demand Charge plus Tax Adjustment.

EFFECTIVE

JUL - 1 2016

REPLACED BY NMPRC

Final Order Case No. 15-00127-UT

Advice Notice No. 239

Signature/Title

Nathan T. Hirschi
Senior Vice President - CFO

EL PASO ELECTRIC COMPANY

SEVENTH REVISED RATE NO. 26 X
CANCELLING SIXTH REVISED RATE NO. 26 X

STATE UNIVERSITY SERVICE RATE

DETERMINATION OF BILLING DEMAND:

Maximum demand will be defined as the highest thirty (30) minute average kilowatt load determined by measurement.

The billing demand will be the highest of:

(a) the maximum demand, adjusted by the Meter Voltage Adjustment, if applicable, or X
(b) 65 percent of the highest measured demand established during the twelve (12) month period ending with the current month, or X
(c) a minimum of 6,000 kW.

X

POWER FACTOR ADJUSTMENT:

If the power factor at the time of the highest thirty (30) minute interval kilowatt demand for the entire plant is below 90% lagging, a power factor adjustment shall be calculated as follows:

ADJ = ((kW x .95 / PF) – kW) x DC, where
ADJ = Increase to applicable Demand Charge,
kW = Monthly Measured Demand, X
PF = Monthly measured Power Factor, and
DC = Demand Charge.

If the power factor measurement is greater than or equal to 90%, then no power factor adjustment will be made. X

METER VOLTAGE ADJUSTMENT: X

If electric service is delivered on the high voltage side of a Customer-supplied transformer, but metered on the low voltage side of the transformer, the following meter adjustments shall be made: X X X

Adjusted Maximum kW Demand = Metered Maximum kilowatts multiplied by 1.014 X
Billing kilowatt-hours = Metered kilowatt-hours multiplied by 1.020 X

If electric service is delivered on the low voltage side of a Company-owned transformer and metered on the high voltage side of the transformer, the following meter adjustments shall be made: X X X

EFFECTIVE

JUL – 1 2016

REPLACED BY NMPRC

BY Final Order Case No. 15-00127-UT

Advice Notice No. 239

Signature/Title

Nathan T. Hirschi
Senior Vice President - CFO

EL PASO ELECTRIC COMPANY

SEVENTH REVISED RATE NO. 26
CANCELLING SIXTH REVISED RATE NO. 26

STATE UNIVERSITY SERVICE RATE

Adjusted Maximum kW Demand = Metered Maximum kilowatts divided by 1.014
Billing kilowatt-hours = Metered kilowatt-hours divided by 1.020

FUEL AND PURCHASE POWER COST ADJUSTMENT CLAUSE (FPPCAC):

All service taken under this rate schedule is subject to the provisions of the Company's Rate Schedule No. 18 (FPPCAC).

TAX ADJUSTMENT:

Billings under this rate schedule may be increased by an amount equal to the sum of taxes payable under the Gross Receipts and Compensating Tax Act and of all other taxes, fees or charges (exclusive of ad valorem, state and federal income taxes) payable by the utility and levied or assessed by any governmental authority on the public utility service rendered, or on the right or privilege of rendering the service, or on any object or event incidental to the rendition of the service.

TERMS OF PAYMENT:

All bills under this rate schedule are due and payable when rendered and become delinquent twenty (20) calendar days thereafter. If the twentieth day falls on a holiday or weekend, the next Company business day will apply.

TERMS AND CONDITIONS:

Service supplied under this rate schedule is subject to the Company's Rules and Regulations on file with the New Mexico Public Regulation Commission and available for inspection at Company offices.

EFFECTIVE

JUL - 1 2016

REPLACED BY NMPRC

Final Order Case No. 15-00127-UT

Advice Notice No. 239

Signature/Title

Nathan T. Hirschi
Senior Vice President - CFO

EXHIBIT B
CANCELLATION SCHEDULE

Exhibit B

NMSU Solar Plus Storage
Cancellation Schedule

Year			Plant in Service	Accumulated Depreciation	Net Plant Investment
0			$7,838,226		
1				$ 261,274	7,576,952
2				$ 522,548	7,315,678
3				$ 783,823	7,054,403
4				$ 1,045,097	6,793,129
5				$ 1,306,371	6,531,855
6				$ 1,567,645	6,270,581
7				$ 1,828,919	6,009,307
8				$ 2,090,194	5,748,032
9				$ 2,351,468	5,486,758
10				$ 2,612,742	5,225,484
11				$ 2,874,016	4,964,210
12				$ 3,135,290	4,702,936
13				$ 3,396,565	4,441,661
14				$ 3,657,839	4,180,387
15	New			$ 3,919,113	3,919,113
16	Battery	$	1,279,850	$ 4,265,711	4,852,365
17				$ 4,612,308	4,505,768
18				$ 4,958,906	4,159,170
19				$ 5,305,503	3,812,573
20				$ 5,652,101	3,465,975
21				$ 5,998,698	3,119,378
22				$ 6,345,296	2,772,780
23				$ 6,691,893	2,426,183
24				$ 7,038,491	2,079,585
25				$ 7,385,088	1,732,988
26				$ 7,731,686	1,386,390
27				$ 8,078,283	1,039,793
28				$ 8,424,881	693,195
29				$ 8,771,478	346,598
30				$ 9,118,076	0
Total			$9,118,076		

Annual Depreciation 1	$	261,274
Annual Depreciation 2	$	85,323

EXHIBIT C
NMSU CERTIFICATE OF COVERAGE

NEW MEXICO
GENERAL SERVICES DEPARTMENT
RISK MANAGEMENT DIVISION

EVIDENCE OF COVERAGE

MEMORANDUM NUMBER:RMD-EOC-FY20

This Evidence of Coverage is used as a matter of information only and confers no rights upon the Certificate Holder. This Evidence of Coverage does not amend, extend, or alter the coverage afforded by the Tort Claims Act or the applicable Certificates of Coverage or policies for the type(s) of coverage listed below.

CERTIFICATE HOLDER INFORMATION

INSURED: NEW MEXICO STATE UNIVERSITY (95300)

LOSS PAYEE: TO WHOM IT MAY CONCERN

Coverage Period:
12:00 AM 07/01/19 to 11:59 PM 06/30/20

This is to certify that the Insured has the coverages listed below for the period indicated. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this Evidence of Coverage may be used or may pertain, the coverages indicated in this Evidence of Coverage are subject to all terms, exclusions, and conditions of the Certificates of Coverage and other insurance policy(s) to which this Evidence of Coverage pertains. Property and Liability Certificates of Coverage may be obtained by contacting the State of New Mexico's Risk Management Division at 505-827-2036.

Type of Coverage	Limit of Liability/Coverage
A) Liability i. General Liability ii. Automobile Liability iii. Law Enforcement iv. Civil Rights	Statutory Limit NMSA § 41-4-19
B) Workers Compensation.....	Statutory Limits NMSA § 52-1-1 et seq.
C) Property..... i. Auto Physical Damage	$550,000,000.00 Limit Actual Cash Value (ACV)
D) Medical Malpractice	Statutory Limit NMSA § 41-4-19
E) Boiler & Machinery.....	$100,000,000.00 Limit
F) Fine Arts.....	$300,000,000.00

Per 66-5-207, NMSA 1978, - A motor vehicle owned by the United States Government, any state, or political subdivision of the state, is exempt from the Mandatory Financial Responsibility Act.

Per 66-6-15(E), NMSA 1978, - A vehicle or trailer owned by and used in the service of the State of New Mexico or any county or municipality thereof need not be registered but must continually display plates furnished by the Transportation Services Division of the General Services Department.

Should any of the above coverages for the Covered Party be changed or withdrawn prior to the expiration date issued above, the State of New Mexico will notify the Certificate Holder, but failure of such notification shall impose no obligation or liability of any kind upon the State of New Mexico, its agents, or representatives.

Authorized Representative:		Clinton Nicley
Date Issued:	7-1-2019	Clinton Nicley, Director, Risk Management Division , GSD

N. M. S. A. 1978, § 41-4-19

§ 41-4-19. Maximum liability

Effective: July 1, 2008

A. Unless limited by Subsection B of this section, in any action for damages against a governmental entity or a public employee while acting within the scope of the employee's duties as provided in the Tort Claims Act, the liability shall not exceed:

(1) the sum of two hundred thousand dollars ($200,000) for each legally described real property for damage to or destruction of that legally described real property arising out of a single occurrence;

(2) the sum of three hundred thousand dollars ($300,000) for all past and future medical and medically related expenses arising out of a single occurrence; and

(3) the sum of four hundred thousand dollars ($400,000) to any person for any number of claims arising out of a single occurrence for all damages other than real property damage and medical and medically related expenses as permitted under the Tort Claims Act.

B. The total liability for all claims pursuant to Paragraphs (1) and (3) of Subsection A of this section that arise out of a single occurrence shall not exceed seven hundred fifty thousand dollars ($750,000).

Affidavit of Dr. Dan Arvizu

BEFORE ME, the undersigned authority, on this day personally appeared DR. DAN ARVIZU, who, having been placed under oath by me, did depose as follows:

1. My name is Dan Arvizu. I am of sound mind, over the age of 21, a resident of the State of New Mexico, and competent to make this affidavit. I have personal knowledge of the facts stated herein, and the facts and opinions stated herein are true and correct to the best of my knowledge and belief.

2. I am the Chancellor of the New Mexico State University System ("NMSU"). I am a New Mexico native and grew up in Alamogordo. I have a Bachelor of Science in Mechanical Engineering from NMSU, and a Master of Science and Ph.D. in Mechanical Engineering from Stanford University. I spent much of my career focusing on advanced energy research and development, materials and process sciences, and technology commercialization. I started my career in 1973 at Bell Labs, and after four years transferred to Sandia National Labs, where I spent the next 21 years, 14 years in executive roles. In 1998, I joined CH2M Hill Companies, Ltd for 6 years, my last two years as a Chief Technology Officer. In January of 2005, I was appointed the 8th Director of the U.S. Department of Energy's National Renewable Energy Laboratory ("NREL") in Golden, Colorado and became the first Hispanic Lab Director in the history of any of the 17 U.S. DOE's National Labs. I became Chancellor and the 28th Chief Executive of the NMSU System on June 1, 2018. I am a proud Aggie, and am the second alumnus and first Hispanic to be hired as the NMSU System Chancellor and Chief Executive.

3. I provide this affidavit in support of El Paso Electric Company's ("EPE") application in this case for approval of the Special Rate Agreement between EPE and NMSU for a 3 megawatt ("MW") solar generation and 1 MW / 4 MWh battery storage facility. I understand EPE's application is filed pursuant to EPE's Sixth Revised Rate No. 30, Load Retention Rate.

4. When I was selected Chancellor, one of my charges was to accelerate NMSU's leadership in energy efficiency and sustainability, and transition the University's use of clean energy that is affordable, reliable and safe. As a Land Grant University, our clean energy development will also provide NMSU's students and faculty with opportunities for educational and research purposes, and reduce our reliance on fossil fuel generated power.

5. To implement our energy objectives, NMSU notified EPE, NMSU's electric utility provider, of our desire for an up-to-3 MW solar facility and 1 MW / 4 MWh battery storage to provide renewable energy to supply a portion of NMSU's electricity needs as well as for research and teaching purposes. NMSU also notified EPE of our willingness to pursue our energy objectives by seeking an alternative provider to supply renewable energy generation and storage facilities, which would result in curtailment of a portion of NMSU's electrical power requirements from EPE. EPE and NMSU then entered a Memorandum of Understanding ("MOU"), attached hereto as Exhibit A, to work together on the project. Following EPE's Request for Proposal process, EPE and NMSU negotiated the Special Rate Agreement proposed for approval in this case.

6. Consistent with NMSU's energy objectives outlined above, but for the Special Rate Agreement proposed in this case, NMSU will seek an alternative supplier of renewable energy and battery storage facilities, and will reduce its electric service from EPE. As demonstrated by the response to EPE's Request for Proposals and by the growing trend in distributed generation, there is substantial interest and willingness by renewable energy generation developers to provide such service. NMSU's preference is to seek to work with EPE, as the public utility serving NMSU and southern New Mexico, on this project rather than curtail its service from EPE.

7. The proposed solar generation and battery storage facilities can help to advance NMSU's energy, research, and teaching objectives for all of the NMSU campuses, while also

helping EPE to manage its peak summer load and enhance system reliability without cost to retail ratepayers.

FURTHER THE AFFIANT SAYETH NOT.

Dan Arvizu

The foregoing instrument was acknowledged before me by Dan Arvizu on this 15 day of November, 2019.

Notary Public

OFFICIAL SEAL
LYDIA B. DURAN
NOTARY PUBLIC - State of New Mexico
My Commission Expires 25th Feb., 2023

My commission expires 25th Feb., 2023

Affidavit of Dale Harrell

BEFORE ME, the undersigned authority, on this day personally appeared DALE HARRELL, who, having been placed under oath by me, did depose as follows:

1. My name is Dale Harrell. I am of sound mind, over the age of 21, a resident of the State of New Mexico, and competent to make this affidavit. I have personal knowledge of the facts stated herein, and the facts and opinions stated herein are true and correct to the best of my knowledge and belief.

2. I am employed by New Mexico State University ("NMSU") as the University Engineer. My responsibilities include master planning, utility upgrades and reliability, project management, design and design review. My educational background is a terminal degree in Electrical Engineering. My professional background is in operations and maintenance at various locations including the NASA Test Facility, International Paper, Westinghouse Electric, and consulting with various utilities in medium voltage education and maintenance practices. I am a licensed professional engineer in the State of New Mexico, license number 20821. I am authorized by NMSU to make this statement.

3. I provide this affidavit in support of El Paso Electric Company's ("EPE") application in this case for approval of the Special Rate Contract between EPE and NMSU for a 3 megawatt ("MW") solar generation and 1 MW / 4 MWh battery storage facility.

4. I understand EPE's application is filed pursuant to EPE's Sixth Revised Rate No. 30, Load Retention Rate.

5. It is my understanding that any alternative renewable energy source considered by NMSU to serve the stated (required) 3 megawatt (MW) load would be specified and procured to

ensure that all environmental standards set by applicable governmental entities, including the Federal Clean Air Act and amendments, would be met.

FURTHER THE AFFIANT SAYETH NOT.

Dale Harrell

The foregoing instrument was acknowledged before me by Dale Harrell on this 30th day of October, 2019.

Notary Public

My commission expires 11.1.20

Official Seal
ADRIANA O DELGADO
Notary Public
State of New Mexico
My Commission Expires 11.1.20

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF EL PASO ELECTRIC COMPANY'S APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A SOLAR GENERATION/STORAGE PROJECT AT NEW MEXICO STATE UNIVERSITY AND FOR APPROVAL OF A SPECIAL RATE CONTRACT)	**Case No. 19-00350-UT**
EL PASO ELECTRIC COMPANY, Applicant.	

PROPOSED FORM OF NOTICE

NOTICE is hereby given of the following matters pertaining to the above-captioned case pending before the New Mexico Public Regulation Commission ("Commission" or "NMPRC"):

On November 20, 2019, El Paso Electric Company ("EPE" or "Company") filed its Application with the Commission, in accordance with the requirements of the New Mexico Public Utility Act, NMSA 1978, Sections 62-9-1, 62-9-6, and 62-6-26, the Final Order in Case No. 09-00171-UT, and EPE's Rate No. 30 for issuance of a Certificate of Public Convenience and Necessity ("CCN") for a New Mexico State University ("NMSU") solar generation project and a special rate contact between EPE and NMSU to recover the costs of the proposed facility.

Specifically, EPE seeks expedited approval for a CCN to construct, own and operate a 3 megawatt ("MW"), microgrid ready, ground mounted, single-axis solar photovoltaic generating facility coupled with a 1 MW, 4 megawatt-hour ("MWh") battery storage system on NMSU property located within Arrowhead Park, a research park established by the NMSU Regents under the University Research Park and Economic Development Act, NMSA Section 21-28-1 *et seq.*, in Doña Ana County, New Mexico, to be designated as the NMSU Project (the "Project"). If approved, Project construction is scheduled to begin in 2020, and the Project is scheduled to be in service in 2021. Additionally, EPE is requesting approval of a Special Rate Contract. The Special

Rate Contract is designed to recover the full costs of the Project from NMSU, and EPE will not seek approval to include the cost of the Project in rate base. There will be no cost or rate impact on other customers.

The estimated capital construction cost for the NMSU Project is approximately $6.7 million. In addition, other capital costs for the NMSU Project include the following: interconnection costs of approximately $405,650, estimated AFUDC of approximately $262,783, fencing of $261,000, capitalized administrative and general ("A&G") costs, and other expenses of $200,004, for a total capital cost of $7.838 million. EPE is certified and authorized to conduct the business of providing public utility service within the State of New Mexico and is a public utility subject to the jurisdiction of the Commission under the PUA. Any interested person may inspect EPE's Application filed in this case at EPE's offices, 201 N. Water, Las Cruces, New Mexico, telephone number (575) 526-5551, or the Commission's offices, PERA Building, 1120 Paseo de Peralta, Santa Fe, New Mexico, telephone: (505) 827-1269, (888) 427-5772; or through the Commission's website, www.nmprc.state.nm.us. This case has been docketed as Case No. 19-00***-UT and any inquiries should be referred to that number.

Pursuant to NMSA 1978, Section 62-9-1 (2005), the Commission may approve EPE's Application for a CCN without a formal hearing if no protest is filed within sixty days of the date that notice has been given that EPE has filed its Application. Therefore, the formal hearing scheduled for this matter may be vacated upon further order of the Commission or Hearing Examiner. The procedural schedule for this case is as follows:

A. Any person desiring to intervene in the proceeding must file a Motion to Intervene on or before _____, 2019, pursuant to 17.1.2.23 NMAC.

B. Any protest to EPE's Application shall be filed on or before _____, 2019, and shall state the grounds for protest.

C. The Commission's Utility Division Staff shall, and any intervenor may, file direct testimony on or before _____, 2020.

D. Any rebuttal testimony shall be filed on or before _____, 2020.

E. A public hearing in this case is set to commence at 9.30 a.m. M.T. on _____, 2020 at the Commission's offices in the P.E.R.A. Building, 1120 Paseo de Peralta, Santa Fe, New Mexico 87501, to hear and receive testimony, exhibits, arguments and any other appropriate matters relevant to this proceeding. Such hearing may be vacated if deemed not required under NMSA 1978, Section 62-9-1 (2005), in which case the Commission will take public comment and dispose of the Application at an Open Meeting.

The procedural dates and requirements provided herein are subject to further order of the Commission or Hearing Examiner. The Commission's Utility Division Procedures, 1.2.2 NMAC, apply to this case except as modified by Order of the Commission or the Hearing Examiner. A copy of such rules may be obtained from the offices of the Commission and are available at the official New Mexico Administrative Code website, www.nmprc.state.nm.us/nmac/.

Anyone filing pleadings, documents or testimony in this case shall serve copies on all parties of record and the Commission Staff via first class mail and email. Any such filings shall also be sent to the Hearing Examiner via email to _____. All filings shall be emailed on the date they are filed with the Commission.

Any interested person may appear at the public hearing referred to above and give a written or oral comment, pursuant to the Commission's Utility Division Rules of Procedure, 1.2.2 NMAC, without becoming an intervenor. The comment will not be considered as evidence in this case.

Any person with a disability requiring special assistance in order to participate in this proceeding should contact the offices of the Commission at least 24 hours prior to the commencement of the Open Meeting.

ISSUED **at Santa Fe, New Mexico this ____ day of _____, 2019.**

NEW MEXICO PUBLIC REGULATION COMMISSION

_____

Hearing Examiner

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF EL PASO ELECTRIC COMPANY'S APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A SOLAR GENERATION/STORAGE PROJECT AT NEW MEXICO STATE UNIVERSITY AND FOR APPROVAL OF A SPECIAL RATE CONTRACT)		**Case No. 19-00___-UT**
EL PASO ELECTRIC COMPANY, Applicant.		

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that **El Paso Electric Company's Application for Expedited Approval of a Certificate of Public Convenience and Necessity and for a Special Rate Contract and Supporting Direct Testimonies of James A. Schichtl; Omar Garcia-Bracho; and Julio C. Aguirre** was hand-delivered, mailed first class, or emailed on November 20, 2019, to each of the following:

Nancy B. Burns
El Paso Electric Company
300 Galisteo St. Suite 206
325 Paseo de Peralta
Santa Fe, NM 87501
nancy.burns@epelectric.com;
patricia.griego@epelectric.com;

Mariah Novela, Case Manager
Curtis Hutcheson, Case Manager
El Paso Electric Company
100 North Stanton
El Paso, TX 79901
mariah.medley@epelectric.com;
curtis.hutcheson@epelectric.com;

Jeffrey J. Wechsler, Esq.
John F. McIntyre, Esq.
325 Paseo de Peralta
Santa Fe, NM 87501
jwechsler@montand.com;
jmcintyre@montand.com;
dluna@montand.com;

Anastasia S. Stevens, Esq.
Stevens Law LLC
128 Grant Avenue #220
Santa Fe, NM 87501
astevens.law@gmail.com;

Jennifer Vega-Brown, Esq.
Marcia B. Driggers, Esq.
City of Las Cruces
P.O. Box 20000
Las Cruces, NM 88004-9002
jvega-brown@las-cruces.org;
marcyd@las-cruces.org;

Joan E. Drake, Esq.
Attorney for NMSU
Modrall Sperling
P.O. Box 2168
Albuquerque, NM 87103-2168
jdrake@modrall.com;

Nann M. Winter, Esq.
Attorney for Doña Ana County
Stelzner, Winter, Warburton,
Flores, Sanchez & Dawes, P.A.
P.O. Box 528
Albuquerque, NM 87103
nwinter@stelznerlaw.com;
kherrmann@stelznerlaw.com;

Steve Michel, Esq.
Western Resource Advocates
409 East Palace Ave. Unit #2
Santa Fe, NM 87501
smichel@westernresources.org;

Jason Marks, Esq.
Jason Marks Law, LLC
1011 Third St. NW
Albuquerque, NM 87102
lawoffice@jasonmarks.com;

Bruce Throne, Esq.
Attorney for The Alliance for Solar Choice
1440-B South St. Francis Dr.
Santa Fe, NM 87505
bthroneatty@newmexico.com;

Dahl Harris
2753 Herradura Rd.
Santa Fe, NM 87505
dahlharris@hotmail.com;

Andrew Harriger
Sawvel and Associates, Inc.
100 East Main Cross St. Suite 300
Findlay, OH 45840
akharriger@sawvel.com;

Hand-Delivered
Bradford Borman
NMPRC Legal Division
1120 Paseo de Peralta
Santa Fe, NM 87501
bradford.borman@state.nm.us;

Andrea Crane
Consultant for NMAG
The Columbia Group, Inc.
2805 East Oakland Park Blvd. #401
Ft. Lauderdale, FL 33006
ctcolumbia@aol.com;

Charles Noble, Esq.
Attorney for CCAE
409 East Palace Ave. Unit #2
Santa Fe, NM 87501
noble.ccae@gmail.com;

Joshua L. Smith, Esq.
Attorney for City of Anthony
Watson Law Office, LLC
P.O. Box 2183
Mesilla Park, NM 88047
jsmith.watsonlawlc@gmail.com;
mayortrujillo@cityofanthonynm.org;

Nelson Goodin
Fred Kennon
Doña Ana County
P.O. Box 2528
Las Cruces, NM 88004
nelsong@donaanacounty.org;
fredk@donaanacounty.org;

Jim Dittmer
Utilitech, Inc.
621 NE Persimmon Cir.
Lee's Summit, MO 64064
jdittmer@utilitech.net;

Hand-Delivered
Milo Chavez
NMPRC Utility Division
1120 Paseo de Peralta
Santa Fe, NM 87501
milo.chavez@state.nm.us;
jack.sidler@state.nm.us; (email only)

Kyle J. Smith, Esq.
U.S. Army Legal Services Agency
9275 Gunston Road
ATTN: Jals-RL/IP
Fort Belvoir, VA 22060-4446
kyle.j.smith124.civ@mail.mil;

Robert Lundin, Esq.
Office of the Attorney General
P.O. Drawer 1508
Santa Fe, NM 87504-1508
rlundin@nmag.gov;
eheltman@nmag.gov;
aminard@nmag.gov;
ckhoury@nmag.gov;

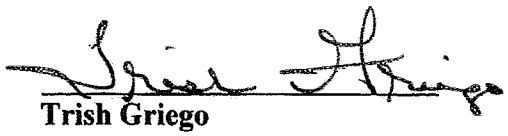
Merrie Lee Soules, *Pro Se*
6760 Bright View Rd.
Las Cruces, NM 88007
mlsoules@hotmail.com;

Rick Gilliam
Vote Solar
590 Redstone Drive
Broomfield, CO 80020
rick@votesolar.org;

Joe Herz, PE
Sawvel and Associates, Inc.
970 W. Road
Burr Oak, KS 66936
jaherz@sawvel.com;

Hand-Delivered
Russell Fisk
Office of General Counsel
1120 Paseo de Peralta
Santa Fe, NM 87501
russell.fisk@state.nm.us;

DATED this 20th day of November, 2019.



Trish Griego
Legal Assistant

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF EL PASO ELECTRIC COMPANY'S APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A SOLAR GENERATION/STORAGE PROJECT AT NEW MEXICO STATE UNIVERSITY AND FOR APPROVAL OF A SPECIAL RATE CONTRACT)	)	**Case No. 19-00___-UT**
EL PASO ELECTRIC COMPANY, Applicant.	)	

DIRECT TESTIMONY OF

JAMES A. SCHICHTL

ON BEHALF OF

EL PASO ELECTRIC COMPANY

NOVEMBER 2019

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EXHIBITS

EL PASO ELECTRIC COMPANY
DIRECT TESTIMONY OF
JAMES A. SCHICHTL

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is James A. Schichtl. My business address is 100 N. Stanton Street, El Paso, Texas 79901.

Q. HOW ARE YOU EMPLOYED?

A. I am employed by El Paso Electric Company ("EPE" or the "Company") as Vice President of Regulatory Affairs.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND AND EXPERIENCE.

A. I have been employed by EPE since February 2012. In June 2016, I was promoted from the Director of Regulatory Affairs to Vice President. Prior to becoming a Director, I was the Manager of EPE's Economic & Rate Research group, responsible for EPE's jurisdictional cost of service, rate design analysis, and developing EPE's retail rate schedules and charges. Prior to that, I was a Senior Regulatory Case Manager, responsible for the production, filing, and execution of regulatory applications before both the Public Utility Commission of Texas ("PUCT") and the New Mexico Public Regulation Commission ("NMPRC" or "Commission").

Prior to joining EPE in February 2012, I spent 18 years in various regulatory functions at Southern California Edison Company ("SCE"), 12 of those in a managerial capacity. As Manager of Pricing Design and Research, I was responsible for SCE's rates and tariffs during deregulation and changes required following the California power crisis in 2001. I was subsequently promoted to Manager of Tariffs and Advice Letters, with broad responsibility within SCE's regulatory group for evaluating California statutes, rules, and regulations and managing regulatory efforts at the California Public Utilities Commission ("CPUC"). Those efforts included significant involvement in the transition back to a regulated generation market as well as significant expansion of distributed generation in California.

I graduated with a Bachelor of Science in Mechanical Engineering in 1987 from the University of Texas at El Paso, where I also studied graduate-level economics and econometrics. Throughout my career at EPE, I have attended and presented material for numerous seminars and workshops related to cost of service, rate and program design, and regulation.

Q. PLEASE DESCRIBE YOUR PRINCIPAL AREAS OF RESPONSIBILITY.

A. As Vice President of Regulatory Affairs, I am responsible for the oversight and direction of EPE's Economic Research, Rate Research, and Regulatory Accounting

groups, as well as EPE's Regulatory Case Management group. Economic Research performs EPE's load research and analysis and forecasting functions. Rate Research encompasses EPE's rate research function, jurisdictional and class cost of service studies, rate design analysis, and the development of EPE's retail rate schedules and charges. The Regulatory Accounting group is responsible for the scheduling, preparation, and review of jurisdictional regulatory accounting and reporting. The Regulatory Case Management group coordinates and oversees regulatory filings made by EPE with the PUCT, NMPRC, the Federal Energy Regulatory Commission ("FERC"), and local Texas municipal regulators.

Q. HAVE YOU PREVIOUSLY PRESENTED TESTIMONY BEFORE UTILITY REGULATORY BODIES?

A. Yes. I have previously filed testimony with and testified before the NMPRC, the PUCT and the CPUC.

Q. ARE YOU SPONSORING EXHIBITS TO YOUR TESTIMONY?

A. Yes. I sponsor the proposed executed NMSU/EPE Load Retention and Pricing Contract for which EPE is requesting approval, and which is included as Exhibit JS-1.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide support for EPE's request for an expedited Certificate of Convenience and Necessity ("CCN") authorizing EPE to construct, own and operate a three (3) megawatt ("MW_{AC}"), ground mounted, single-axis solar photovoltaic generating facility coupled with a one (1) MW_{AC}, four (4) megawatt-hour ("MWh_{AC}") Battery Energy Storage System ("BESS") located wholly within Arrowhead Park on the New Mexico State University ("NMSU") campus, a research park established by the NMSU Regents under the University Research Park Act, in Doña Ana County, New Mexico (the "NMSU Project"). Specifically, I present EPE's request for a CCN to construct, own and operate the NMSU Project, to be paid for by NMSU through a proposed load retention Special Rate Contract EPE has negotiated with NMSU, a copy of which is attached to my testimony as Exhibit JS-1. I also introduce EPE's other witnesses, and I discuss the regulatory requirements for approval of the Company's requests in this filing. Finally, I address EPE's plans for financing the new generation and storage facilities and why the costs associated with the NMSU Project will have no impact on the rates charged to other customers served by EPE in New Mexico.

Q. PLEASE IDENTIFY EPE'S OTHER WITNESSES IN THIS PROCEEDING

AND SUMMARIZE THE SUBJECTS THEY ADDRESS.

A. In addition to myself, the Company is presenting two witnesses: Omar Garcia-Bracho, EPE's Supervisor of Renewables Development and Management, and Julio C. Aguirre, a Senior Rate Analyst in EPE's Rate Research group. Mr. Garcia-Bracho describes the technical aspects of the proposed NMSU Project, as well as the request for proposal process utilized in selecting a contractor. He also provides details regarding the cooperation between EPE and NMSU in development of the NMSU Project.

Mr. Aguirre supports the development of the energy price at which NMSU will be purchasing all energy from the NMSU Project, as well as the other pricing terms included in the Special Rate Contract. He also describes how EPE and NMSU will periodically review the financial payback of the NMSU Project over the life of the facility and contract.

III. PROPOSED NMSU SOLAR AND BATTERY STORAGE FACILITY

Q. WHAT IS THE COMPANY REQUESTING IN THIS PROCEEDING CONCERNING THE NMSU PROJECT?

A. EPE is requesting expedited approval of (1) a CCN for the NMSU Project; and (2) the Special Rate Contract between EPE and NMSU pursuant to EPE's load retention Rate No. 30. EPE requests a Commission Final Order approving the CCN

and Special Rate Contract by the second quarter of 2020. As discussed in more detail by EPE witness Garcia-Bracho, construction of the NMSU Project must begin before December 31, 2020 to qualify for the federal Investment Tax Credit ("ITC") of 26 percent, which is currently scheduled to be reduced to 22 percent beginning on January 1, 2021. The current ITC is reflected in the energy price that EPE developed for purposes of energy purchases for the NMSU Project. The Special Rate Contract, included as Exhibit JS-1, includes all conditions of the long-term energy purchase by NMSU of the power produced by the NMSU Project.

Q. IS EPE REQUESTING ANY RATEMAKING TREATMENT FOR THE NMSU PROJECT IN THIS PROCEEDING?

A. Yes, EPE is requesting ratemaking treatment as provided in the Special Rate Contract. EPE proposes that the capital and all operating costs of the NMSU Project be entirely paid for by NMSU pursuant to, and as part of, the proposed Special Rate Contract for load retention purposes between EPE and NMSU. The CCN is conditioned upon NMSU paying for the costs of the NMSU Project by purchasing the entire energy output of the facility. EPE will not request to include the NMSU Project capital cost in rate base or propose to recover its associated operations or maintenance costs in base rates, and EPE will not allocate any revenue shortfall under the load retention rate contract to other New Mexico customers

served by EPE. I address the regulatory requirements for NMPRC approval of the Special Rate Contract later in my testimony.

Q. IS APPROVAL OF ANY OTHER STATE REGULATORY BODY REQUIRED FOR THE PROPOSED NMSU PROJECT?

A. No. Because the NMSU Project will be an EPE resource located in New Mexico and dedicated to serving a single customer also located in New Mexico, no approvals beyond that of the NMPRC are required.

IV. PROJECT DEVELOPMENT

Q. HOW DID EPE INITIATE ITS PROJECT DEVELOPMENT?

A. This project is being designed, built, and operated at the request of NMSU, both as a resource for renewable energy and for educational and research purposes. NMSU initiated discussions with the Company for EPE to supply a portion of NMSU's electric load with renewable energy and storage, as well as provide NMSU's students and faculty with an environment for educational and research opportunities. NMSU stated its desire to take advantage of the cost reduction offered by the ITC because a lower overall cost for the proposed NMSU Project equates to a lower cost of energy for NMSU.

Q. WHAT ARE THE KEY PROVISIONS OF THE AGREEMENT BETWEEN EPE AND NMSU?

A. If approved by the Commission, EPE will construct, own and operate the NMSU Project and deliver the energy to NMSU. In addition, as EPE witness Omar Garcia-Bracho and I describe further, EPE plans to use the BESS during EPE's system peak hours by charging it during non-peak daylight hours and discharging it during Summer peak hours, providing capacity when it is most needed. EPE plans to operate the NMSU Project in coordination with NMSU to provide NMSU with research and educational opportunities. The payment structure, explained more fully in EPE witness Julio Aguirre's testimony, is designed so that NMSU will pay the full cost of the NMSU Project and the energy delivered from EPE, and EPE will provide NMSU a capacity credit to reflect use of the BESS. Based on current assumptions, the Project is projected to be net cost neutral or positive to NMSU over the term of the Special Rate Contract.

EPE witness Garcia-Bracho describes the interest of NMSU in locating a solar and storage project, to provide renewable energy, within Arrowhead Park on the NMSU campus, and its desire to provide NMSU students and faculty an environment for educational and research opportunities.

V. STANDARDS FOR CCN APPROVAL

Q. WHAT IS THE STATUTORY STANDARD FOR GRANTING A CCN IN NEW MEXICO?

A. Pursuant to Sections 62-9-1 and 62-9-6 of the New Mexico Public Utility Act ("PUA"), prior CCN approval is required to construct and operate a new utility system generation plant. The Commission must give due regard to the public convenience and necessity to determine whether the construction and operation of the proposed utility plant is necessary or appropriate to provide service to EPE's customers and will be accomplished without unnecessary duplication or economic waste. PUA Section 62-9-6 also requires that EPE have its articles of incorporation on file with the Commission and make a showing that EPE has received the consent and franchise from the municipality where the construction and operation is proposed.

Additionally, PUA Section 62-9-1 recently was amended to include a new section regarding CCN approval for energy storage systems. Under the new PUA, Section 62-9-1(D), the Commission shall approve requested energy storage system CCNs that:

(1) reduce costs to ratepayers by avoiding or deferring the need for investment in new generation and for upgrades to systems for the transmission and distribution of energy;

(2) reduce the use of fossil fuels for meeting demand during peak load periods and for providing ancillary services;

(3) assist with ensuring grid reliability, including transmission and distribution system stability, while integrating sources of renewable energy into the grid;

(4) support diversification of energy resources and enhance grid security;

(5) reduce greenhouse gases and other air pollutants resulting from power generation;

(6) provide the public utility with the discretion, subject to applicable laws and rules, to operate, maintain and control energy storage systems so as to ensure reliable and efficient service to customer; and

(7) are the most cost effective among feasible alternatives.

Q. WHAT OTHER REGULATORY STANDARDS APPLY TO THE CONSTRUCTION OF NEW GENERATION?

A. In addition to the CCN statute, certain Commission rules govern the addition of new plant and capacity, which include the Commission's Integrated Resource Plan ("IRP") Rule 17.7.3.3, as well as the Commission's informational reporting Rules 17.5.440 and 17.9.570.

Q. DOES THE COMPANY HAVE A CERTIFIED COPY OF ITS ARTICLES OF INCORPORATION ON FILE WITH THE COMMISSION AS REQUIRED BY THE CCN STATUTE?

A. Yes. EPE has been registered as a foreign corporation with the Commission since

1925, and EPE's articles of incorporation are on file with the Commission.

Q. WILL THE PROPOSED NMSU PROJECT BE LOCATED WITHIN A NEW MEXICO MUNICIPALITY THAT REQUIRES A FRANCHISE?

A. No. The NMSU Project will be located within the Arrowhead Park located on the NMSU campus and outside the city limits of Las Cruces, in Doña Ana County, New Mexico. As such, no franchise is required.

Q. IS LOCATION APPROVAL REQUIRED FROM THE COMMISSION?

A. No. The PUA does not require location approval for a project of this size in New Mexico. The Location statute, Section 62-9-3, only applies to generating units located within New Mexico that are 300 MW or larger.

Q. PLEASE IDENTIFY ANY NEW MEXICO ENVIRONMENTAL ISSUES ASSOCIATED WITH THIS PROJECT.

A. I am not aware of any environmental issues associated with the NMSU Project. The NMSU Project will not produce emissions or noise, and EPE is not required to obtain any New Mexico environmental permits in connection with the NMSU Project. In addition, my understanding from experts in EPE's Environmental Department is that the proposed NMSU Project meets all environmental standards

set by other applicable governmental entities, including the Federal Clean Air Act.

Q. IS CONSTRUCTION OF THE NMSU PROJECT CONSISTENT WITH EPE'S MOST RECENTLY FILED IRP?

A. Yes. EPE's Amended 2018 IRP includes EPE proposals for customer projects for renewable energy as a component of the required four-year action plan. The NMSU Project would not only add renewable resources more quickly than is anticipated for larger resources in the base case expansion plan, it will also make a proportionately larger contribution to peak demand service, relative to stand-alone solar, given the battery storage component.

Q. HAS EPE PROVIDED THE INFORMATION REQUIRED UNDER NMPRC RULE 440 AND RULE 570?

A. Yes. The testimony filed in this case provides the necessary information regarding the purpose, construction details and new capacity data required under Rules 440 and 570 (17.5.440 and 17.9.570 NMAC). In addition, EPE will submit its Rule 440 and Rule 570 compliance filings to the Commission.

Q. WHY IS THE REQUESTED CCN NECESSARY AND IN THE PUBLIC INTEREST?

A. EPE is requesting a CCN for the NMSU Project to accommodate the renewable energy and educational goals of one of its major customers in New Mexico. Granting of the CCN allows EPE to assist with the unique energy, education and research needs of NMSU, and serves the larger public interest by retaining load within the EPE service territory for an important state university customer that contributes considerably to the local economy and higher education in New Mexico. The addition of the NMSU Project to provide NMSU renewable energy and serve peak load allows EPE to retain customer load, which contributes to EPE's summer peak load management and fixed cost recovery, to the benefit of EPE's other customers.

Q. WHAT WOULD BE THE EFFECT ON EPE OF GRANTING THE CCN?

A. Broadly speaking, there are two effects--one is financial and the other is operational. As discussed later in my testimony, construction of the proposed NMSU Project will have minimal effect on EPE's financial position. Accommodating the needs of NMSU and retaining the associated load pursuant to the Special Rate Contract provides benefits to EPE and other customers by insulating other customers from costs of the project and keeping rates as low as possible, while adding solar generation that will help EPE manage its system peak loads in the summer months. The NMSU Project will also provide EPE more

experience with solar generation operations and battery storage dispatch.

Q. WHAT WOULD BE THE EFFECT OF GRANTING EPE THE CCN ON UTILITIES SERVING THE PROXIMATE AREA?

A. There would not be any such effect, since no other electric utility serves in the proximate area of the proposed NMSU Project. EPE is interconnected with Public Service Company of New Mexico and Tri-State Generation & Transmission Association in southern New Mexico. The addition of the NMSU Project on the NMSU campus will have minimal impact, if any, upon the facilities of these other utilities and will not impair their operations.

Q. IS EPE REQUESTING ANY DETERMINATION OF RATEMAKING FOR THE PROJECT IN THIS PROCEEDING?

A. Yes. The proposed NMSU Project will be interconnected to the distribution system owned by, and located on, the NMSU campus, and the total output of the NMSU Project will be sold under the proposed Special Rate Contract to NMSU. EPE and NMSU have negotiated a special rate for load retention purposes, to incorporate the NMSU Project into the full retail service supplied by EPE to NMSU. EPE requests approval of the proposed Special Rate Contract pursuant to its Rate No. 30 – Load Retention Rate in this proceeding.

Q. WHAT WILL NMSU PAY FOR ENERGY SUPPLIED BY THE NMSU PROJECT?

A. Under the Special Rate Contract, a copy of which is included as Exhibit JS-1 to my testimony, NMSU will purchase all energy generated by the NMSU Project over the 30-year life of the NMSU Project at a fixed energy price, similar to the purchase power agreement prices under which EPE buys power from third-party solar facilities. Based on the total estimated cost of owning and operating the solar and battery storage facilities, EPE developed a levelized cost of energy ("LCOE") for the 30-year life of the NMSU Project of $0.08289 per kWh. The cost reflects the full cost of the NMSU Project over the life of the contract, including construction and operating costs, expected battery replacement in Year 16, as well as estimated costs of inverter and other equipment replacement necessary over time, to account for system degradation. EPE bases the LCOE on the expected output of the NMSU Project over its useful life, considering normal system degradation, and NMSU will pay the fixed rate for all energy supplied to NMSU. EPE witness Aguirre supports and presents the LCOE calculation in his testimony. The remainder of NMSU's power requirements will be supplied by EPE under the NMPRC-approved retail rate applicable to NMSU's service, which is currently Rate No. 26 – State University Service Rate.

Q. WILL NMSU BE SUBJECT TO RATE SCHEDULE NO. 18 – FUEL AND PURCHASED POWER COST ADJUSTMENT CLAUSE (FPPCAC) FOR ALL ENERGY SUPPLIED BY EPE?

A. Yes. All NMSU energy requirements that are not provided by the NMSU Project will be supplied by EPE system resources and will be subject to the applicable FPPCAC.

Q. WILL NMSU BE SUBJECT TO RATE SCHEDULE NO. 17 – EFFICIENT USE OF ENERGY FACTOR (EUERF)?

A. Yes. NMSU will be subject to the applicable EUERF for the total pre-tax charges for EPE service.

Q. WILL NMSU BE SUBJECT TO RATE SCHEDULE NO. 38 – RENEWABLE PORTFOLIO STANDARD ("RPS") COST RIDER FOR ALL ENERGY SUPPLIED BY EPE?

A. Yes, but only for energy supplied by EPE system resources. Energy supplied by the NMSU Project will not be subject to the RPS Cost Rider. NMSU energy requirements not provided by the NMSU Project will be supplied by EPE system resources, which incorporate the RPS portfolio resources, and will be subject to the

applicable RPS Cost Rider.

Q. WILL EPE RETIRE THE RENEWABLE ENERGY CERTIFICATES GENERATED FROM THE NMSU PROJECT ON BEHALF OF NMSU?

A. No. Under the Special Rate Contract, NMSU will own the RECs and environmental attributes associated with the renewable energy produced by the NMSU Project. NMSU will register the RECs produced by the facility for energy purchased and consumed by NMSU with WREGIS and retire them on their own behalf.

Q. IN YOUR OPINION, HAS EPE MET THE BURDEN FOR APPROVAL OF ITS CCN APPLICATION, INCLUDING THE STANDARDS THAT APPLY TO ENERGY STORAGE SYSTEMS?

A. Yes. As the testimony and exhibits show, approval of the CCN for the proposed NMSU Project and the requested Special Rate Contract is in the public interest in that it meets the renewable energy, educational and research goals of a large university customer, and it enables the retention of a portion of the NMSU load, to the benefit of other customers. As such, I believe that EPE has met the statutory burden for approval of a CCN for the proposed NMSU Project, and for approval of the proposed Special Rate Contract to recover the capital costs of the NMSU

Project.

VI. LOAD RETENTION RATE AND SPECIAL RATE CONTRACT

Q. WHAT ARE THE REQUIREMENTS FOR LOAD RETENTION CONTRACTS UNDER EPE'S RATE NO. 30?

A. The Load Retention Rate No. 30 is applicable to all commercial and industrial customers that have taken service from EPE for at least 12 months, have minimum monthly demand of 1,500 kW, and who establish that they have a verifiable option of replacing EPE service for supplying a portion, or all, of their energy requirements. Rate 30 is designed to address those instances where customers demonstrate that they may reduce EPE-supplied service through self-supply, curtail service for financial reasons (by reducing their load for example), or depart from EPE's service territory entirely. In these instances, Rate No. 30 allows EPE to enter into negotiations to establish a lower rate for service, which shall not be less than the Company's incremental cost of power and energy over the life of the contract. Rate No. 30 also requires that the customer submit a notarized affidavit that attests to the fact that, but for the retention contract, it would otherwise reduce or eliminate load from EPE's system.[1]

[1] Rate No. 30 requires sufficient documentation of the economic feasibility of an alternative generation source to establish eligibility.

Q. DOES THE PROPOSED SPECIAL RATE CONTRACT MEET THOSE REQUIREMENTS?

A. Yes. NMSU receives retail service from EPE under Rate No. 26, a commercial service rate designed specifically for the University, and has taken service under that retail rate for more than 12-months. Rate No. 26 requires a minimum demand of 6,000 kW, which exceeds the minimum demand requirement for the Load Retention Rate.

As EPE witness Garcia-Bracho explains in his direct testimony, NMSU made the determination to explore on-campus renewable generation prior to engaging EPE. The University's decision to install behind-the-meter generation (potentially coupled with storage or within a microgrid arrangement), either owned by NMSU or a third-party, creates one of the load bypass circumstances that Rate No. 30 is designed to address. The rate contract I discuss in more detail in this section provides NMSU a competitive option for the desired installation while allowing the customer to involve EPE in the procurement, installation, and operation of the facility on NMSU's behalf.

Finally, NMSU has provided affidavits attesting to the University's desire and intention to have the NMSU Project on campus and that meets the requirements of Rate No. 30. The agreement between EPE and NMSU to have the facility built,

owned, and operated by EPE replaces the potential alternative for NMSU – which would entail NMSU or third-party ownership of an identical facility. The viability of the proposed NMSU Project satisfies the load retention rate requirements related to the economic and engineering feasibility of the planned NMSU Project interconnection and operation on campus. The required NMSU affidavits are attached to the Application as Attachments B and C.

Q. HOW WILL EPE ENSURE THAT THE CONTRACT RATE PAID BY NMSU WILL NOT BE LESS THAN THE COMPANY'S INCREMENTAL COST OF POWER AND ENERGY OVER THE LIFE OF THE CONTRACT?

A. All costs associated with the NMSU Project are incremental to current EPE system costs and will be recovered from NMSU through the contract energy price over the life of the NMSU Project. This includes the cost of interconnecting the new NMSU Project with the NMSU distribution system, and any required upgrades to the EPE system. Service interconnection facilities at the point of coupling between EPE and NMSU are not impacted by the NMSU Project due to the small size of the NMSU Project relative to total NMSU load, and operation of the NMSU Project is not expected to result in the export of energy to the EPE system outside the campus.

Under the Special Rate Contract, attached as Exhibit JS-1 and as described

in more detail by EPE witness Aguirre, NMSU will be billed using the base rates applicable for Rate No. 26 for all campus load, exclusive of capacity and energy supplied by the NMSU Project. EPE will determine these billing determinants by combining meter data for the NMSU Project with the campus metering for power supplied by EPE. The Special Rate Contract then adjusts the NMSU billing for the system value of the NMSU Project, based on EPE's avoided cost of production capacity and variable operations and maintenance costs. The net effect of this contracted billing approach is to ensure that NMSU pays the full capacity and operations cost of the transmission and distribution facilities serving the campus, and none of these costs involve a subsidy by other customers.

Q. WHAT IS THE BASIS FOR THE ENERGY-RELATED AND CAPACITY CREDITS THAT EPE IS INCLUDING IN THE SPECIAL RATE CONTRACT?

A. As discussed in the testimony of EPE witness Aguirre and reflected in the Special Rate Contract, NMSU will be provided a credit for the costs avoided by EPE as the result of energy and capacity provided by the Project. The energy-related component reflects variable, non-fuel generation costs associated with EPE's system resources that are developed in the cost of service study filed with general rate case proceedings. As noted in the Special Rate Contract, this credit will be

updated in future rate case proceedings.

The capacity-related component reflects annual avoided cost estimates for forecasted generation additions developed by EPE's Resource Planning Department and includes estimated total installed cost, capital expenditure cash flow, estimated insurance and property tax costs, and book and tax depreciation, and are updated annually These avoided capacity costs are used, among other things, to evaluate the cost effectiveness of EPE's energy efficiency and load management programs approved by NMPRC Final Orders, pursuant to the New Mexico Efficient Use of Energy Act. As addressed by EPE witness Aguirre, this credit will be periodically reviewed and updated, if necessary, under the terms of the Special Rate Contract to ensure that the Project will be at least net cost neutral to NMSU over the term of the Special Rate Contract.

Q. IN YOUR OPINION, HAS EPE MET THE BURDEN FOR APPROVAL THE SPECIAL RATE CONTRACT UNDER RATE NO. 30 – LOAD RETENTION RATE?

A. Yes. NMSU's load qualifies for load retention under EPE's Rate No. 30, and the Special Rate Contract ensures that NMSU will pay all incremental costs of service for the Project. NMSU has provided an affidavit attesting to the fact that, absent construction and operation of the Project by EPE, NMSU or third-party ownership

of an identical on-campus renewable generation resource is a viable option. EPE has met the burden of the proposed Special Rate Contract to recover the capital costs of the NMSU Project, as well as any incremental cost of the project.

VII. FINANCING OF THE NMSU PROJECT

Q. WHAT IS THE ESTIMATED TOTAL COST OF THE NMSU PROJECT?

A. The estimated capital construction cost for the NMSU Project is approximately $6.7 million. In addition, other capital costs for the NMSU Project include the following: interconnection costs of approximately $405,650, estimated AFUDC of approximately $262,783, fencing of $261,000, capitalized administrative and general ("A&G") costs, and other expenses of $200,004, for a total capital cost of $7.838 million. EPE witness Garcia-Bracho discusses all aspects of the NMSU Project costs in his testimony. These costs are included in the monthly rate for NMSU Project power, which was developed by EPE witness Aguirre, and will be paid by NMSU monthly for energy supplied by the NMSU Project over the life of the Project.

Q. HOW IS THE PROPOSED NMSU PROJECT TO BE FINANCED?

A. EPE expects to incorporate the cost of the NMSU Project into its current construction funding plans, which may be financed through cash from operations,

debt, equity, or a combination of all three. EPE issues long-term debt in the form of unsecured senior notes, uses cash from operations to meet its general funding requirements, and may use equity to balance its capital structure. EPE also maintains a $350 million revolving credit facility, which provides funds for construction work and other operational needs, as well as to finance nuclear fuel purchases.

Q. WHAT EFFECT WILL THE COST OF THE NMSU PROJECT HAVE ON THE FINANCIAL POSITION OF THE COMPANY?

A. The cost of the proposed NMSU Project will have a minimal effect on the financial position of the Company. EPE's financing plan to use cash from operations, long-term debt, and/or equity will allow it to continue to maintain a strong capital structure. In addition, EPE expects to maintain its investment-grade bond ratings during the construction of the plant based upon projected financial ratios.

VIII. EFFECT OF THE NMSU PROJECT ON RATES

Q. WHAT EFFECT WILL THE ADDITION OF THE NMSU PROJECT HAVE ON NEW MEXICO CUSTOMERS?

A. As I discussed previously, the full cost of the NMSU Project will be recovered through the sale of energy to NMSU, so the NMSU Project will have no impact on

the base rates charged to other customers served in New Mexico by EPE.

Energy production by the NMSU Project may affect generation by other EPE resources. Because solar production occurs during the day and near the time of EPE's system peak, and because EPE intends to operate the BESS to maximize capacity of the NMSU Project at the time of system peak, the dispatch of other generation units with higher fuel cost may be curtailed. However, because the unit is relatively small (3 MW is approximately 0.2% of the capacity of EPE's total generation resources), EPE anticipates that the fuel cost effect will be minimal.

Also, addition of the NMSU Project behind the meter at NMSU will reduce the load on other existing EPE generation resources by a commensurate amount. The net effect is to marginally increase EPE's reserve margin.

Q. HOW WILL THE NMSU PROJECT IMPACT NEW MEXICO CUSTOMERS IN THE LONG TERM?

A. There are at least two aspects of the addition of the NMSU Project that may impact other customers in the long term. The first stems from the retention of a portion of NMSU's load on EPE's system, which is ensured for 30 years under the Special Rate Contract. To the extent EPE can accommodate the unique needs of NMSU and contribute to the University's research and educational objectives regarding renewable energy, all other customers and New Mexicans benefit. Secondly, the

new NMSU Project is unique among existing customer solar installations in that it includes a storage component that EPE will operate and dispatch to serve load at the time of EPE's system peak, to the benefit of all customers.

Q. HOW DOES EPE'S DISPATCH OF THE STORAGE COMPONENT OF THE NMSU PROJECT BENEFIT CUSTOMERS OTHER THAN NMSU?

A. When the NMSU Project is operating and supplying NMSU capacity during peak periods, additional system peak capacity becomes available for use by other customers. This is because EPE will operate and dispatch the storage component of the facility to shift peak output to summer peak hours – between the hours of noon and 6:00 pm. This additional peak capacity increases EPE reserves during the most system constrained hours, when EPE historically experiences its peak demand, to the benefit of other customers.

IX. SUMMARY AND CONCLUSION

Q. CAN YOU SUMMARIZE YOUR TESTIMONY?

A. Yes. The Commission should approve EPE's application for a CCN authorizing the NMSU Project and the Special Rate Contract. EPE has shown that additional renewable capacity can provide benefits for EPE ratepayers and is the best alternative as NMSU expands generation at the University to ensure power supply

and delivery, and to provide NMSU students and faculty a unique power distribution and generation environment for educational and research opportunities. EPE's application for approval of a CCN and the Special Rate Contract for the proposed NMSU Project complies with statutory and rule requirements and is consistent with Rate No. 30. EPE can finance the NMSU Project with minimal impact on its financial condition, and the new facility will have a beneficial impact on EPE's other customers in New Mexico in the near- and long-term by retaining an important customer on the EPE system and making additional system capacity available for all customers during summer peak hours.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

Special Rate Contract

Between

El Paso Electric Company

and

The Regents of New Mexico State University

dated as of

November 15, 2019

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LIST OF EXHIBITS

SPECIAL RATE CONTRACT

BETWEEN

EL PASO ELECTRIC COMPANY

AND

THE REGENTS OF NEW MEXICO STATE UNIVERSITY

This Agreement is entered into as of the Effective Date by and between EPE and NMSU.

RECITALS

WHEREAS, EPE is a public utility and provides retail electric service within the geographic area of the State of New Mexico in which NMSU is located, and desires to retain NMSU's load;

WHEREAS, EPE is authorized, pursuant to the Public Utility Act, NMSA § 62-6-16 and the Final Orders in NMPRC Case Nos. 09-00171-UT and 15-00185-UT to enter into special contracts with customers and contracts for load retention of retail electric service pursuant to EPE's Sixth Revised Rate No. 30, Load Retention Rate;

WHEREAS, NMSU is an existing retail customer of EPE, and operates its main campus facilities that are connected to EPE's retail distribution system in Las Cruces, New Mexico;

WHEREAS, NMSU desires to advance its renewable energy goals, and has requested EPE to supply a portion of NMSU's electric utility load with renewable energy and storage as well as to provide NMSU's students and faculty with research and educational opportunities through a solar PV generation and battery facility to be located within Arrowhead Park on NMSU's main campus in Las Cruces, New Mexico;

WHEREAS, NMSU has informed EPE of its renewable energy objectives and that, but for agreement with EPE to provide such service, NMSU will obtain the desired service from a third party;

WHEREAS, EPE desires to retain NMSU's load and increase the amount of renewable energy on its system while at the same time gaining further experience with operating and maintaining solar and energy storage technology;

WHEREAS, in response to NMSU's request, EPE desires to develop, finance, construct, own, operate, and maintain the Project;

WHEREAS, EPE and NMSU desire that the rate agreed to in this Agreement be designed and calculated so that (1) no other customers of EPE are charged for any costs associated with the Project; (2) the rate that NMSU will pay for electric utility service from EPE is sufficient to cover EPE's cost of serving NMSU; and (3) the Project is expected to be net cost neutral or positive to NMSU over the Term.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained, EPE and NMSU hereby agree as follows:

ARTICLE 1. RULES OF CONSTRUCTION, INTERPRETATION, DEFINITIONS.

1.1. Rules of Construction.

Capitalized terms in the Agreement, including as defined in this Article 1, will have the meanings set forth herein whenever the terms appear in the Agreement, whether in the singular or the plural or in the present or past tense. Words not otherwise defined herein that have well known and generally accepted technical or trade meanings are used herein in accordance with such recognized meanings. In addition, the following rules of construction will apply:

1.1.01 References to "Articles," "Sections," or "Exhibits" will be to articles, sections, or exhibits of the Agreement.

1.1.02 The Exhibits attached hereto are incorporated in and are intended to be a part of the Agreement; provided, that, in the event of a conflict between the terms of any Exhibit or Schedule and the terms of the Agreement, the terms of the Agreement will control.

1.1.03 The Agreement was negotiated and prepared by both Parties with the advice and participation of counsel. The Parties have agreed to the wording of the Agreement, and none of the provisions hereof will be construed against one Party on the ground that such Party is the author of the Agreement or any part hereof.

1.1.04 The Parties will act in a commercially reasonable manner and in accordance with the principles of good faith and fair dealing in the performance of the Agreement. Unless and except as expressly provided otherwise in the Agreement, wherever the Agreement gives a Party a right to determine, require, specify, or take similar action with respect to a matter, such determination, requirement, specification, or similar action will be commercially reasonable. References herein to any Applicable Law will, except as otherwise specified, mean such Applicable Law as amended and in effect from time to time, including any successor to or replacement of such Applicable Law.

1.1.05 Use of the words "include" or "including" or similar words will be interpreted as "include without limitation" or "including, without limitation."

1.2. Definitions.

Unless defined elsewhere herein, capitalized terms used in the Agreement will have the following scope and meaning:

1.2.01 "**ADR**" means alternative dispute resolution.

1.2.02 "**Agreement**" means this Special Rate Contract.

1.2.03 "**Agreement Approval**" means a non-appealable final order or other regulatory determination from the NMPRC approving EPE entering into the Agreement pursuant to NMSA 1978, sections 62-6-26, 62-8-6, and EPE's Load Retention Tariff No. 30.

1.2.04 "**Applicable Laws**" means all applicable laws, statutes, treaties, codes, ordinances, regulations, certificates, orders, licenses, and permits of any Governmental Authority, now in effect or hereafter enacted, amendments to any of the foregoing, interpretations of any of the foregoing by a Governmental Authority having jurisdiction, and all applicable judicial,

administrative, arbitration, and regulatory decrees, judgments, injunctions, writs, orders, awards, or like actions (including those relating to human health, safety, the natural environment, or otherwise).

1.2.05 **"Approval Order"** means a final order or other regulatory determination from the NMPRC approving EPE entering into the Agreement.

1.2.06 **"Arrowhead Park"** means that land, in Doña Ana County, New Mexico, leased to Arrowhead Center Inc. by NMSU for the purposes of development of a research park as defined in the ground lease dated February 6, 2007.

1.2.07 **"Business Day"** means any day other than a Saturday, Sunday or a legal holiday in Las Cruces, New Mexico, or El Paso, Texas.

1.2.08 **"Cancellation Schedule"** has the meaning provided in Section 13.3.02(a).

1.2.09 **"CCN"** means a Certificate of Public Convenience and Necessity issued by the NMPRC pursuant to NMSA 1978, section 69-9-1.

1.2.10 **"CCN Approval"** means a non-appealable final order or other regulatory determination from the NMPRC approving a CCN for EPE to construct, own, and operate the Project.

1.2.11 **"CCN Order"** means a final order or other regulatory determination from the NMPRC approving a CCN for EPE to construct, own, and operate the Project.

1.2.12 **"Commercial Operation"** means the Project has met "Commercial Delivery of Power" as set forth in EPC Contract; EPE has satisfied all conditions precedent in Article 7; and the Project is capable of providing Project Power to the Project Power Point of Delivery at the Nameplate Capacity, consistent with Prudent Utility Practice.

1.2.13 **"Commercial Operation Date"** means the date that the Project meets Commercial Operation.

1.2.14 **"Default Termination Notice"** means a written notice from one Party informing the other Party that an Event of Default exists.

1.2.15 **"Early Termination"** means a termination of the Agreement prior to the 30th year of the Term, as provided in Article 13.

1.2.16 **"Effective Date"** means November 8, 2019.

1.2.17 **"EPC Contract"** means the Turnkey Engineering, Procurement and Construction Agreement for Coupled Solar Photovoltaic Generating Facility and Energy Storage System between EPE and Affordable Solar Installation, Inc. for the construction of the Project.

1.2.18 **"EPE"** means El Paso Electric Company, a Texas corporation.

1.2.19 **"EPE Event of Default"** means each of those events described in Section 12.1.

1.2.20 **"Event of Default"** means each of those events described in Article 12 constituting an act of default by either of the Parties.

1.2.21 **"Force Majeure Event"** means events beyond the Parties' reasonable control including, but not limited to, acts of God, such as lightning, floods, washouts, earthquakes or storms, acts of war, acts of public enemies, labor disputes, strikes or other industrial disturbances, fire, explosion, accidents, sabotage or vandalism; orders, laws or decrees of Governmental Authorities; or lack of raw materials necessary for the provision of the service, unforeseen operational problems on the generation, transmission or distribution systems of others or other events of similar kind and effect beyond the reasonable control of the Party claiming such force majeure.

1.2.22 **"Governmental Authority"** means any federal, state, local, or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority, including the NMPRC, having jurisdiction over a Party or the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power.

1.2.23 **"Grid Resource Power"** means firm electric demand and energy delivered through the electrical distribution system owned by EPE and operated and maintained outside of NMSU's distribution system.

1.2.24 **"Grid Resource Power Point of Delivery"** means the point of delivery of Grid Resource Power through the electrical distribution system owned by EPE and interconnected to the NMSU-owned Tortugas Substation.

1.2.25 **"Immediate Notice"** means notice that must be provided as soon as practicable but in no case more than 12 hours after a Party is aware of the need to provide notice.

1.2.26 **"kV"** means kilovolts.

1.2.27 **"kWh"** means kilowatt-hour.

1.2.28 **"MPT"** means Mountain Prevailing Time, which is the time in effect in the Mountain Time Zone of the United States of America, whether Mountain Standard Time or Mountain Daylight Saving Time.

1.2.29 **"MW"** means megawatt.

1.2.30 **"MWh"** means megawatt hour.

1.2.31 **"Nameplate Capacity"** means the rated MW output of the Project under expected operating conditions guaranteed by EPE's contractor in the EPC Contract of three MW alternating current for the solar PV and one MW / four MWH for the battery energy storage system.

1.2.32 **"NMAC"** means New Mexico Administrative Code.

1.2.33 **"NMPRC"** means the New Mexico Public Regulation Commission.

1.2.34 **"NMPRC Approvals"** means collectively the CCN Approval and Agreement Approval.

1.2.35 **"NMPRC Approval End Date"** means 10 months following the date EPE files its application for CCN Approval at the NMPRC.

1.2.36 "**NMSA**" means New Mexico Statutes Annotated.

1.2.37 "**NMSU**" means the Regents of New Mexico State University, or New Mexico State University.

1.2.38 "**NMSU Event of Default**" means those events as set forth in Section 12.2.

1.2.39 "**Notice of Early Termination**" means a written notice provided by the terminating Party to the non-terminating Party that it intends to terminate the contract for a reason other than an Event of Default, with such notice being provided in the manner required by Section 13.2.02.

1.2.40 "**Parties**" means collectively, EPE and NMSU.

1.2.41 "**Party**" means individually, EPE or NMSU.

1.2.42 "**Project**" means a solar PV facility with Nameplate Capacity of three MW alternating current and associated battery storage facility with Nameplate Capacity of one MW / four MWh that will supply power to NMSU on land located at Arrowhead Park on the NMSU campus.

1.2.43 "**Project Power**" means electric demand and energy delivered by the Project to NMSU's distribution system.

1.2.44 "**Project Power Point of Delivery**" means the point at which Project Power is delivered to NMSU and first leaves the line or apparatus owned by EPE, which will be behind the meter for Grid Resource Power.

1.2.45 "**Project REC**" means the REC created due to the electricity generated by the Project facilities.

1.2.46 "**Prudent Utility Practice**" means any of the practices, methods, and acts engaged in or approved by a significant portion of the utility-scale solar and battery industry during the relevant time period, or any of the practices, methods, and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition. Prudent Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be practices, methods, or acts generally accepted in the region.

1.2.47 "**PV**" means photovoltaic.

1.2.48 "**Rate 26**" means New Mexico Rate No. 26 – State University Service Rate ("Rate 26"), or any subsequent rate tariff superseding it as approved by the NMPRC.

1.2.49 "**Renewable Energy Benefits**" means any and all renewable and environmental attributes, emissions reductions, credits, offsets, allowances, or benefits, however entitled, (a) allocated, assigned, awarded, certified, or otherwise transferred or granted to EPE or NMSU by any federal, state, local, or other Governmental Authority in any jurisdiction in connection with the Project or (b) associated with the production of energy from the Project or based in whole or in part on the Project's usage of renewable resources for generation or because the project constitutes a renewable energy system or the like or because the Project does not produce greenhouse gases, regulated emissions, or other pollutants, in each case, whether any such credits,

offsets, allowances, or benefits (x) exist now or in the future, (y) arise under existing Applicable Law or any future Applicable Law (whether such credit, offset, allowance, or benefit or any Applicable Law, or the nature of such, is foreseeable or unforeseeable), or (z) arise in respect of electrical energy that is delivered to the Project Power Point of Delivery.

1.2.50 **"Renewable Energy Certificate"** or **"REC"** means a certificate or other record that represents all the environmental attributes from one MWh of electricity generated from renewable energy and that is registered with a regional tracking system approved by the NMPRC for the purpose of tracking RECs for utility compliance with the Renewable Energy Act, NMSA 1978, section 62-16-1 et seq.

1.2.51 **"Sublease"** means that Ground Sublease on Arrowhead Park in Doña Ana County, New Mexico by and between EPE and Arrowhead Center, Inc.

1.2.52 **"Summer Months"** means the months of May through October.

1.2.53 **"Term"** means the period of time commencing on the Effective Date and terminating at 11:59 am MPT on the date that is the last day of the thirtieth year after the Commercial Operation Date subject to the early termination provisions set forth herein.

1.2.54 **"Test Power"** means electrical energy produced by the Project during construction and testing prior to the Commercial Operation Date.

1.2.55 **"Tortugas Substation"** means that facility located on Payne Street on the NMSU campus where the EPE Grid Power Point of Delivery currently connects to the NMSU electrical distribution system.

1.2.56 **"WREGIS"** means the Western Renewable Energy Generation Information System.

ARTICLE 2. PROJECT OBJECTIVES AND DESCRIPTION.

2.1. Project Objectives and Benefits.

2.1.01 The objectives of the Project are for EPE to supply a portion of NMSU's electric utility load with renewable energy and storage as well as to provide NMSU's students and faculty with research and educational opportunities.

2.1.02 The Parties acknowledge that the Project will also benefit EPE by increasing the amount of renewable energy on EPE's system, providing opportunities for EPE to manage its peak load service during Summer Months, and allowing EPE to gain further experience with operating and maintaining solar and energy storage technology.

2.2. Location.

The Project will be located within the NMSU campus as provided in the Sublease.

2.3. Description of Service.

EPE will furnish to NMSU and NMSU will receive and pay for Project Power in accordance with and under the terms and conditions set forth in this Agreement and its Exhibits. EPE will conduct operation and maintenance of the Project at no additional cost to NMSU other

than what is contemplated by this Agreement, perform maintenance in accordance with equipment manufacturer recommendations, and ensure that the Project is operational and producing the maximum amount of power possible, and providing power in accordance with Prudent Utility Practices. To the maximum extent practicable, EPE will schedule maintenance and repair of the Project such that the Project Power purchased by NMSU is maximized.

2.4. Point of Delivery.

2.4.01 There will be two points of delivery: (i) the Project Power Point of Delivery and (ii) the Grid Resource Power Point of Delivery.

2.4.02 EPE agrees to provide all necessary labor, materials, tool, equipment, facilities, transportation and incidentals to deliver Project Power to NMSU.

2.5. Metering.

2.5.01 EPE, at its expense, will install and maintain the appropriate metering equipment at NMSU for billing purposes. The Project Power furnished under this Agreement will be measured by such metering equipment at a voltage of 23.9 kV for both the Grid Resource Power Point of Delivery and the Project Power Point of Delivery. EPE, at its own expense, will inspect and test the billing meter upon installation and at least annually thereafter. EPE will provide NMSU with reasonable advance notice of, and permit a representative of NMSU to witness and verify, such inspections and tests, provided, however, that NMSU must not unreasonably interfere with or disrupt the activities of EPE and will comply with all applicable safety standards.

2.5.02 Either EPE or NMSU may elect to install and maintain, at its own expense, survey metering devices in addition to the billing metering equipment. Installation and maintenance of the survey metering devices and billing metering equipment will be performed in a manner acceptable to EPE. The installing Party, at its own expense, will inspect and test the survey metering devices. The survey metering devices installed by NMSU must be located outside the Project facility

2.6. Customer Installations.

NMSU agrees that it will not, without prior notice to and consent of EPE, install any motor, appliance, or any other apparatus on the Project equipment.

2.7. Project Construction and Operation.

2.7.01 EPE will design, engineer, install, commission, operate, and maintain the Project, in each case in a good and workmanlike manner and in accordance with Prudent Utility Practice and all Applicable Laws and policies in place during the Term of this Agreement. EPE will issue a notice to proceed to its contractor under the EPC Contract within five Business Days of receiving NMPRC Approvals unless good cause is shown to reasonably delay such issuance.

2.7.02 EPE will endeavor to use suitably qualified, experienced, and licensed contractors and subcontractors to perform its obligations under this Agreement. EPE will be responsible for the quality of the work performed by its contractors and subcontractors. EPE will pay when due all valid charges from all contractors, subcontractors, and suppliers supplying goods or services to EPE under this Agreement. EPE will be solely responsible for payment of wages, salary, or

benefits to any and all employees or contractors retained by EPE in the performance of the services agreed to herein.

2.7.03 EPE will provide to NMSU, upon reasonable request, an annual summary in writing of Project performance, to include Project Power delivered, battery performance, and system faults.

2.8. Continuity of Service.

EPE will use reasonable diligence to provide a regular and uninterrupted production of Project Power from the Project, subject to agreements to provide different service pursuant to any validly entered into agreement, outages for maintenance and repair, and due to Force Majeure Events pursuant to Article 15.

ARTICLE 3. SALE AND PURCHASE OF ENERGY OUTPUT.

3.1. Sale and Purchase.

In accordance with and subject to the terms and conditions of this Agreement, commencing on the Commercial Operation Date and continuing through the end of the Term, EPE must sell and deliver to NMSU, and NMSU must purchase and receive from EPE, all right, title, and interest in and to the Project Power, which is to be delivered to NMSU at the Project Power Point of Delivery and the payment therefor is to be calculated as provided in Exhibit A.

3.2. Title and Risk of Loss.

As between EPE and NMSU, EPE will be deemed to be in control of the Project Power from the Project up to the Project Power Point of Delivery, and NMSU will be deemed to be in control of such Project Power from and after the Project Power Point of Delivery. Title and risk of loss related to the Project Power will transfer from EPE to NMSU at the Project Power Point of Delivery.

ARTICLE 4. RATE CALCULATION.

Rate calculations will be as set forth in Exhibit A.

ARTICLE 5. BILLING AND PAYMENT.

5.1. Invoices.

At the completion of each month of service from the Project, EPE will submit a summarized invoice for services rendered from the Project for that month. EPE will prepare and submit a combined monthly invoice including charges for Grid Resource Power and Project Power, including any credits, as calculated and provided in Exhibit A. Upon NMSU request, EPE will provide the available interval data.

5.2. Payment.

Invoices will be due and payable as indicated on the invoices submitted in accordance with Section 5.1.

5.3. Billing Disputes.

Any billing disputes shall be handled in accordance with section 17.9.560 NMAC.

ARTICLE 6. ENVIRONMENTAL ATTRIBUTES.

6.1. No Use for Renewable Energy Act Requirements.

6.1.01 EPE will not use any Project REC to meet EPE's renewable portfolio standard requirements pursuant to subsection A of section 62-16-4 NMSA 1978, as it may be amended from time to time.

6.1.02 EPE will exclude all Project RECs from the total retail sales to New Mexico customers used to determine EPE's renewable portfolio standard requirements pursuant to subsection A of section 62-16-4 NMSA 1978 as it may be amended from time to time.

6.2. Rights to Claims of Use of Project Renewable Energy and Renewable Energy Benefits.

6.2.01 NMSU will have the exclusive rights to make claims – either explicitly or implicitly – about using or being powered with (or similar claims) the renewable energy generated by the Project and the Project's Renewable Energy Benefits.

6.2.02 EPE will have no right to make any claim – either explicitly or implicitly – about using or being powered with (or similar claims) the renewable energy generated by the Project and the Project's Renewable Energy Benefits.

6.3. Registration and Retirement of Project RECs.

6.3.01 EPE, as owner of the Project, will register the Project in WREGIS 30 days after Commercial Operation has been achieved. EPE will indicate when registering the generating unit in the WREGIS system, that the Project RECs will automatically be transferred to NMSU.

6.3.02 NMSU will establish an account with WREGIS in order to receive the transferred Project RECs from EPE associated with the Project. It will be NMSU's sole responsibility to retire any of the Project RECs as NMSU will be the owner of the Project RECs.

ARTICLE 7. CONDITIONS PRECEDENT.

The rights and obligations of the Parties under this Agreement are and will be conditioned upon (i) receipt of all NMPRC Approvals as provided in Section 8.2 and (ii) execution of the Sublease.

ARTICLE 8. LEGAL AND REGULATORY COMPLIANCE AND APPROVALS.

8.1. Laws.

EPE must at all times comply with the Applicable Laws in designing, engineering, constructing, and operating the Project. NMSU must at all times comply with the Applicable Laws in its actions under this Agreement and with respect to the Project.

8.2. NMPRC Approvals.

The obligations of the Parties hereunder will be conditioned upon the receipt of the NMPRC Approvals.

8.2.01 EPE agrees to use commercially reasonable efforts to request and obtain the NMPRC Approvals, and NMSU agrees to provide reasonable cooperation and assistance to EPE in these efforts.

8.2.02 If the NMPRC has not, for any reason, issued CCN Approval or an Approval Order by the NMPRC Approval End Date, then the Parties must meet and confer no later than 15 days after the NMPRC Approval End Date regarding a potential extension of the NMPRC Approval End Date. If the Parties are unable to mutually agree to an extension of the NMPRC Approval End Date, then this Agreement will automatically terminate 10 days after the date on which the Parties conferred and be of no further force and effect except as set forth below. If the Parties fail, for any reason, to meet and confer within 15 days after the NMPRC Approval End Date, then this Agreement will terminate on the 15th day after the NMPRC Approval End Date and be of no further force and effect.

8.2.03 *CCN Approval.*

(a) CCN Approval will be considered received when the NMPRC issues a final, non-appealable order or other final, binding regulatory determination from the NMPRC either (i) approving EPE's application for a CCN, or (ii) approving the CCN in part or subject to conditions or substantial modifications, provided that each of EPE and NMSU agrees, subject to its reasonable discretion, to accept those conditions, modifications or such partial approval, and further provided that the NMPRC's approval, disapproval, conditions on, substantial modifications to, or partial approval of EPE requests other than for a CCN pursuant to NMSA 1978, section 62-9-1.A will not be considered by either Party to be a condition, modification, or partial approval of a CCN.

(b) If the NMPRC denies the CCN, then this Agreement will automatically terminate 10 days after the date of such action by the NMPRC and be of no further force or effect except as set forth below.

(c) If a CCN Order is issued as described in clause (ii) of Section 8.2.03(a), then the Parties must meet and confer no later than fifteen 15 days after the date of Commission issuance of the CCN Order regarding whether EPE and NMSU will elect to amend this Agreement to address any conditions or modifications or not to accept any partial or conditioned approval or modification to this Agreement as a result of the CCN Order. If the Parties are unable to mutually agree on any amendments to this Agreement to address such CCN Order, then this Agreement will automatically terminate 10 days after the date on which the Parties conferred and be of no further

force or effect except as set forth below. If the Parties fail, for any reason, to meet and confer within 15 days after the date of Commission issuance of the CCN Order, then this Agreement will terminate on the 15th day after the date of Commission issuance of the CCN Order and be of no further force or effect except as set forth below.

8.2.04 *Agreement Approval.*

(a) Agreement Approval will be considered received when the NMPRC issues a final, non-appealable order or other final, binding regulatory determination from the NMPRC either (i) approving this Agreement, or (ii) approving this Agreement in part or subject to conditions or modifications, provided that each of EPE and NMSU agrees, subject to its reasonable discretion, to accept those conditions, modifications or such partial approval, and further provided that the NMPRC's approval, disapproval, conditions on, substantial modifications to, or partial approval of EPE requests other than for Agreement Approval pursuant to NMSA 1978, section 62-6-26 and EPE's Rate No. 30 will not be considered by either Party to be a condition, modification, or partial approval of this Agreement.

(b) If the NMPRC denies approval of the Agreement, then this Agreement will automatically terminate 10 days after the date of such action by the NMPRC and be of no further force or effect except as set forth below.

(c) If Agreement Approval is issued as described in clause (ii) of Section 8.2.04(a), then the Parties must meet and confer no later than 15 days after the date of the Agreement Approval regarding whether EPE and NMSU will elect to amend this Agreement to address any conditions or modifications or not to accept any partial or conditioned approval or modification to this Agreement as a result of the Agreement Approval. If the Parties are unable to mutually agree on any amendments to this Agreement to address such Agreement Approval, then this Agreement will automatically terminate 10 days after the date on which the Parties conferred and be of no further force or effect except as set forth below. If the Parties fail, for any reason, to meet and confer within 15 days after the date of Commission issuance of the Agreement Approval, then this Agreement will terminate on the 15th day after the date of Commission issuance of the Agreement Approval and be of no further force or effect except as set forth below.

ARTICLE 9. ASSIGNMENT.

9.1. No Assignment Without Consent.

Except as provided in this Article 9, neither Party may sell, transfer or assign this Agreement, in whole or in part, and EPE may not sell, transfer, or assign any interest in the Project, in whole or in part, without the prior written consent of the other Party which consent will not be unreasonably withheld, delayed, or conditioned; provided (i) at least 60 days' prior notice of any such assignment must be given to the other Party; (ii) any assignee must in writing expressly assume the assignor's obligations hereunder; and (iii) before this Agreement is assigned by EPE, EPE or the assignee must first obtain such approvals as may be required by Applicable Laws.

9.2. Assignment to Lenders.

If EPE assigns this Agreement to its Lenders, EPE will be responsible for NMSU's reasonable costs associated with the review, negotiation, execution, and delivery of documents in connection with such assignment, including reasonable attorneys' fees.

9.3. Assignment Without Consent is Null and Void.

Any assignment of any interest in the Project or in this Agreement made without fulfilling the requirements of this Agreement will be null and void and will constitute an Event of Default pursuant to Article 9.

ARTICLE 10. REPRESENTATIONS AND WARRANTIES.

Each Party represents and warrants that it will use reasonable diligence to maintain and otherwise ensure the safety of the facilities under its ownership or control that are used in provisioning or receiving the service to be rendered under this Agreement.

ARTICLE 11. INDEMNIFICATION AND INSURANCE.

11.1. No Indemnification.

11.1.01 Each Party will be solely responsible for the liability arising from personal injury, including death, or damage to property arising from the acts or failure to act of the respective Party or of its officials, agents, and employees pursuant to this Agreement. NMSU's liability will be strictly limited by and this Agreement will give full effect to the intent of the Tort Claims Act, section 41-4-1 et seq., NMSA 1978, and any amendments thereto.

11.1.02 NMSU will not indemnify for the acts or omissions of any third parties, including its students except to the extent that any student may be employed by NMSU (*e.g.*, student teaching assistant), in connection with the activities contemplated by Section 2.1 hereof and such third party's acts or omissions fall within the scope of the exceptions set forth in sections 41-4-5 through 41-4-12 NMSA 1978.

11.2. Insurance.

11.2.01 *NMSU Insurance.* NMSU agrees to maintain coverage under the New Mexico Public Liability Fund as reflected in the Certificate of Coverage, which is attached and incorporated by reference to this Agreement as Exhibit C. The Certificate of Coverage will be applied giving full effect to the intent of the Tort Claims Act, section 41-4-1 et seq., NMSA 1978, and any amendments thereto.

11.2.02 *EPE Insurance.* EPE represents and warrants that it has in effect and will continue in effect a general commercial liability insurance coverage as agreed in the Sublease article 17, and will provide NMSU with a certificate or certificates of insurance, listing Arrowhead Center, Inc, and NMSU as additional insureds, evidencing that insurance policies required by this Section, issued by an insurance company(s) recognized as an authorized carrier in the State of New Mexico

with a rating reasonably acceptable to NMSU (generally Fitch B++ or equivalent). The certificates must be applicable for the full Term and must be acceptable to NMSU in both form and content.

11.2.03 NMSU will not and does not agree to any waiver of subrogation rights.

ARTICLE 12. DEFAULT.

12.1. EPE Event of Default.

Any one or more of the following will constitute an EPE Event of Default under this Agreement, provided that such will not be considered an EPE Event of Default while the event at issue is the subject of dispute resolution pursuant to Article 16 and such is agreed to by both Parties:

12.1.01 EPE's failure to comply with any material provision of this Agreement, including its Exhibits, where such failure to comply continues for 30 days after delivery of notice thereof by NMSU to EPE. If such default is not reasonably susceptible to cure within such 30-day period, EPE will have such longer period as may be approved in writing in advance by NMSU to cure such default so long as EPE commences curing such default within the initial 30-day period and diligently prosecutes such cure to completion in accordance with a schedule approved in writing by NMSU;

12.1.02 A default by EPE under the Sublease that results in the termination of the Sublease; and

12.1.03 It is found, after notice and hearing by NMSU, or its duly authorized representative, that gratuities in the form of entertainment, gifts, or otherwise, were offered or given by EPE, or any agent or representative of EPE, to any officer or employee of NMSU with a view toward procuring an agreement or procuring favorable treatment with respect to the awarding or amending, or the making of any determinations with respect to the performing of such agreement; provided that the existence of the facts upon which NMSU or its duly authorized representative makes such finding will be an issue and may be reviewed in any competent court. NMSU will be entitled to pursue the same remedies against EPE as it could pursue in the event of any other Event of Default and any other damages to which it may be entitled by law.

12.2. NMSU Event of Default.

The following will constitute an NMSU Event of Default under this Agreement, provided that such will not be considered an NMSU Event of Default while the event at issue is the subject of dispute resolution pursuant to Article 16 and such is agreed to by both Parties:

12.2.01 NMSU's failure to comply with any provision of this Agreement, where such failure to comply continues for 30 business days after delivery of notice thereof by EPE to NMSU. If such default is not reasonably susceptible to cure within such 30-day period, NMSU may have such longer period as may be approved in writing in advance by EPE to cure such default so long as NMSU commences curing such default within the initial 30-day period and diligently prosecutes such cure to completion in accordance with a schedule approved in writing by EPE.

12.2.02 A default by NMSU under the Sublease that results in the termination of the Sublease.

ARTICLE 13. EARLY TERMINATION.

13.1. Circumstances for Early Termination.

This Agreement may be terminated prior to the end of the Term in the following circumstances:

13.1.01 NMSU may terminate this Agreement upon delivery of a Default Termination Notice, without any cost or liability to NMSU, if an EPE Event of Default exists. A Default Termination Notice will be effective as of the date specified therein, which will be at least seven but not more than 30 days after its receipt by EPE.

13.1.02 EPE may terminate this Agreement upon delivery of a Default Termination Notice to NMSU without any cost or liability to EPE, if an NMSU Event of Default exists. A Default Termination Notice will be effective as of the date specified therein, which will be at least seven but not more than 30 days after its receipt by EPE.

13.2. Termination Notices.

13.2.01 *Default Termination Notice.* Notwithstanding any other provision of this Agreement, unless the Parties agree in writing to continue this Agreement in full force and effect, this Agreement will terminate upon termination or non-renewal of the Sublease in accordance with the terms thereof, subject to EPE's continuing obligations as defined in the Sublease and EPE's Early Termination Obligations pursuant to Section 13.3.

13.2.02 *Notice of Early Termination.* If either Party provides a Notice of Early Termination under this Agreement:

(a) The terminating Party will provide notice to the other Party not less than 180 days in advance of its intent to terminate.

(b) All bills due to EPE by NMSU will be due and payable pursuant to Article 5.

13.3. Early Termination Obligations.

13.3.01 In the event this Agreement is terminated for any reason, NMSU will continue to take Grid Resource Power from EPE pursuant to Rate No. 26.

13.3.02 *NMSU Early Termination Payment.*

(a) *Amortization of Project Costs.* The initial capital costs of the PV System are amortized over a period of 30 years, shown in the Cancellation Schedule attached hereto as Exhibit B.

(b) If (i) NMSU terminates this Agreement prior to the 30th year of the Term other than for EPE Event of Default or breach of the Agreement, (ii) NMSU terminates the

Sublease other than for breach of the Sublease, (iii) NMSU modifies the Sublease in such a manner that EPE is unable to operate the Project in a commercially reasonable manner; or (iv) EPE terminates this Agreement due to an NMSU Event of Default or breach of the Agreement then NMSU will pay EPE the unamortized costs in the amounts shown in the Cancellation Schedule. Such payment, however, will be conditioned on EPE not obtaining the necessary regulatory approvals to recover remaining costs in customer rates or EPE not securing a buyer in accordance with Section 13.3.04. Payments under this section will be due six months following the later of (i) the date that EPE determines that it is unable to recover the remaining costs in customer rates, (ii) the effective date of NMSU's termination contemplated by this Section 13.3.02(b), or (iii) the expiration of the period of time EPE has to secure an alternative provider under Section 13.3.04. In no case will the date that EPE determines it is unable to recover the remaining costs in customer rates be sooner than (i) the effective date of NMSU's termination contemplated by this Section 13.3.02(b), or (ii) the expiration of the period of time EPE has to secure an alternative provider under Section 13.3.04.

13.3.03 *EPE Early Termination Payment.*

(a) If EPE terminates this Agreement prior to the 30th Year of the Term other than for NMSU Event of Default or breach of the Agreement, and only if EPE fails to obtain an alternative provider as provided in Section 13.3.04, then EPE will pay NMSU the damages owed to NMSU in accordance with this Section 13.3.03(b) no later than six months after EPE has failed to secure an alternative provider.

(b) *Damages to NMSU for EPE Early Termination.* Damages owed to NMSU upon EPE's early termination or NMSU's termination of the Agreement due to an EPE Event of Default may include: (1) any actual damages and (2) recovery of the value of the research and educational activities NMSU is conducting and would have conducted with the Project but for the Early Termination, such value to be determined under the circumstances and expectations at the time.

13.3.04 *Alternative Provider.* If either Party terminates this Agreement in accordance with Article 13 for a reason other than a NMSU Event of Default, then EPE will use commercially reasonable efforts to secure a buyer for the Project that will agree to the key terms of the Agreement and is approved by both Parties within one year following the receipt by the non-terminating Party of a Notice of Early Termination. The means of locating such a buyer and the terms and conditions of a sale under this Section 13.3.04 will be at the sole discretion of EPE. If a buyer is not able to be secured within the one-year period, EPE may request from NMSU additional time to secure a buyer, and such request must not be unreasonably withheld.

13.4. Obligations Following Termination.

Applicable provisions of this Agreement will continue in effect after termination, including Early Termination, to the extent necessary to enforce or complete the duties, obligations, or responsibilities of the Parties arising prior to termination.

ARTICLE 14. REMEDIES.

14.1. Specific Performance.

If an Event of Default exists hereunder, then the non-defaulting Party will have the right to enforce specific performance by the defaulting Party of its obligations under this Agreement in any state or federal court of competent jurisdiction in addition to all other rights and remedies available to the Parties.

14.2. Separate and Cumulative.

The specified remedies of the Parties under this Agreement are separate and cumulative and are not intended to be exclusive of any other remedies to which each Party may be lawfully entitled in case of any breach or threatened breach by a Party of any provision of this Agreement.

ARTICLE 15. FORCE MAJEURE.

15.1. General.

In the event either party is rendered unable, wholly or in part, by force majeure to carry out its obligations under this Agreement, it is agreed that upon giving notice and full particulars of such force majeure to the other Party within 48 hours after occurrence of the cause relied on, in writing by registered or certified mail, then the obligations of the other party, so far as they are affected by such force majeure, may be suspended from the inception of and during the continuance of any inability so caused. The party claiming force majeure must diligently act to remedy all such force majeure events as expeditiously as reasonably possible. The term of this Agreement may not be deemed to be lengthened or extended by any period of such force majeure.

15.2. Labor Disputes.

It is understood and agreed that the settlement of any labor dispute, strike or lockout will be entirely within the discretion of the affected Party and that nothing in this Agreement requires the affected Party to settle such disputes on terms and conditions it does not believe to be in its best interest.

ARTICLE 16. DISPUTES.

16.1. Parties to Negotiate.

If a dispute should arise pursuant to this Agreement, the Parties agree to first attempt to resolve the dispute using unassisted negotiation techniques (*i.e.*, without the assistance of a neutral third party). Either Party may request in writing that unassisted negotiations commence. As part of the unassisted negotiation, the Parties may consider employing joint fact-finding, if material factual disputes are involved, and may use other early resolution techniques appropriate to the circumstances. If the dispute involves material issues of fact, the Parties may employ a neutral third party to provide a confidential evaluation of the issues of fact.

16.2. ADR Procedure.

If the dispute is not resolved by unassisted negotiation within 60 days after the request for unassisted negotiations, and the Parties do not mutually agree to continue the unassisted negotiations, the Parties must employ the following ADR procedures involving nonbinding mediation of the dispute by a neutral third party.

16.2.01 The ADR procedures employed must include a confidential evaluation of both the facts and the law and the issuance of confidential recommendations by the neutral third party within 30 days of the initiation of ADR procedures by written demand of a Party.

16.2.02 The mediation must be conducted in Las Cruces, New Mexico, in accordance with the Commercial Arbitration Rules of the American Arbitration Association in effect on the date that a Party gives notice of its demand under this Article 16.

16.2.03 The submitting Party must submit such dispute to ADR by providing a written demand for ADR to the other Party.

16.2.04 The Parties must select a single neutral mediator with significant contract resolution experience and experience and understanding of public utility transactions in the state of New Mexico. If the Parties cannot agree on a single neutral mediator within 15 days after the written demand for ADR is provided, then the mediator will be selected pursuant to the Commercial Arbitration rules of the American Arbitration Association in effect on the date such selection is to be made.

16.2.05 The mediator must provide his/her recommendation for resolution to each Party within 30 days following initiation of the mediation.

16.2.06 Each Party must bear its own cost associated with the mediation.

16.3. Other Remedies.

Notwithstanding any effort to resolve the dispute in accordance with this Article 16, each Party retains all rights to pursue any and all remedies to which it is lawfully entitled.

ARTICLE 17. NOTICES AND APPROVALS

All notices and approvals required or permitted to be given under this Agreement must be given in writing by personal delivery or by certified mail, postage prepaid, and addressed to the proper Party at the following addresses:

Immediate Notice of Outage to NMSU:	**NMSU Central Utility Plant (24 hour)** **575-646-7114**
Notice to EPE:	**El Paso Electric Company** **Attn: Business Development Department** **100 N. Stanton St.**

	El Paso, TX 79901
With a copy to:	**El Paso Electric Company** **Attn: Office of General Counsel** **100 N. Stanton St.** **El Paso, TX 79901**
Notice to NMSU:	**NMSU Facilities and Services.** **MSC 3545** **PO Box 30001** **Las Cruces, NM 88003-8001**
With a copy to:	**Office of General Counsel** **New Mexico State University** **P.O. Box 30001 MSC 3UGC** **Las Cruces, NM 88003**
And: "Installation Point of Contact"	**Executive Director, Arrowhead Park** **MSC 3ARP** **PO Box 30001** **Las Cruces, NM 88003-8001**
Notice to any Approved Mortgagee:	**US Bank** **Attn: Bond Trustee** **One Federal Street, 3rd Floor** **Boston, MA 02110**

ARTICLE 18. MISCELLANEOUS.

18.1. Waiver.

A waiver by either Party of any one or more defaults or obligations by the other Party in the performance of any provision of this Agreement will not operate as a waiver of any future default or obligation, whether of like or different character. No waiver by either Party of any of the provisions of this Agreement will be effective unless expressed in writing and signed by an authorized representative of the waiving Party.

18.2. Disclaimer of Certain Third-Party Beneficiary Rights.

This Agreement is for the benefit of the Parties only. No rights or benefits are conferred to any third party by or through this Agreement.

18.3. Relationship of the Parties.

Notwithstanding anything contained herein to the contrary, it is the intention of the Parties that each Party will remain separate and distinct entities, and this Agreement will not affect any merger of the Parties.

18.4. Severability.

The provisions of this Agreement are severable. If any provision is set aside or found to be invalid by any court or Governmental Authority of competent jurisdiction, the other provisions will remain in full force and effect.

18.5. Amendment.

Any change, modification, amendment or alteration of this Agreement must be in writing and signed by authorized representatives of the Parties thereto.

18.6. Binding Effect.

This Agreement will not be binding upon either Party unless and until it has been duly executed in writing by both Parties.

18.7. Headings.

The brief headings or titles identifying and preceding "Article" and "Section" are merely for purposes of identification, convenience, and ease of reference, and will not be used by way of limitation of this Agreement.

18.8. Counterparts.

This Agreement is executed in multiple counterparts, each of which is deemed an original of equal dignity with the other, and all of which are deemed one and the same instrument.

18.9. Governing Law.

This Agreement, and the performance thereof, will be construed in accordance with the laws of the State of New Mexico.

18.10. Forum and Venue of Law.

In any lawsuit or legal dispute arising from the operation of this Agreement, EPE agrees that the laws of the State of New Mexico will govern. Venue will be in the 3rd Judicial District Court of New Mexico in Doña Ana County, New Mexico. Any claim under federal law will be in the Federal Judicial District Court of New Mexico.

18.11. Further Assurances.

Each Party will provide such information, execute and deliver any instruments and documents and to take such other actions as may be reasonably requested by the other Party to give full effect to this Agreement and to carry out the intent of this Agreement.

18.12. Complete Agreement.

This written instrument, together with the provisions of other documents that are expressly incorporated by reference by the terms of this Agreement, embodies the entire agreement between the Parties regarding the matters provided herein. In the event of any inconsistency between the terms of this Agreement and any provision that has been incorporated by reference, the terms of this Agreement will govern. There are no understandings or agreements, verbal or otherwise, between the Parties except as expressly set forth herein.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized officers, effective as of the Effective Date.

EL PASO ELECTRIC COMPANY

By: _____

Name: ADRIAN J. RODRIGUEZ

Title: INTERIM CHIEF EXECUTIVE OFFICER

NEW MEXICO STATE UNIVERSITY

By: _____

Name: DAN E ARVIZU

Title: CHANCELLOR

APPROVED AS TO FORM

_____

EXHIBIT A
RETAIL ELECTRIC SERVICE

This Exhibit A is for retail electric service delivered by EPE to NMSU. Capitalized terms not defined in Section 8.3 of this Exhibit A will have the meanings set forth in the Agreement.

ARTICLE 1. MONTHLY RATE FOR GRID RESOURCE POWER:

1.1. Grid Resource Power delivered by EPE to NMSU under the Agreement will be provided in accordance with EPE's approved tariffs.

1.2. NMSU will be billed for its metered consumption from the EPE system at the Grid Resource Power Point of Delivery based on the rates established in Rate No. 26, which rates may be adjusted from time to time as approved by the NMPRC.

1.3. The Project Power Point of Delivery is located "behind-the-meter" with respect to the Grid Resource Power Point of Delivery. The Grid Resource Power and the Project Power will be aggregated monthly as the billing determinants for purposes of billing the Rate No. 26 Demand Charge and the Rate No. 26 Energy Charges included in base rates, as described in Sections 1.4 and 1.5.

1.4. The Rate No. 26 Demand Charge included in base rates will apply to the highest 30-minute combined integrated kW load, which is the aggregate of 1) the highest kW load measured at the Grid Resource Power Point of Delivery, and 2) Project Power kW load delivered to the Project Power Point of Delivery, as measured in the same single 30-minute interval.

1.5. The Rate No. 26 Energy Charges included in base rates will apply to the aggregated 1) Grid Resource Power kWh monthly billing determinants and 2) the Project Power kWh monthly billing determinants by time-of-use period, as applicable.

1.6. All other approved riders, factors, and surcharges as currently in effect under Rate No. 26 and all rates referenced as applicable under Rate No. 26 will be assessed. New Mexico Rate No. 18 Fuel and Purchased Power Cost Adjustment Clause ("FPPCAC") and New Mexico Rate No. 38 Renewable Portfolio Standard Cost Rider ("RPS Rider") will be applied to Grid Resource Power monthly billing determinants. New Mexico Rate No. 17 Efficient Use of Energy Recovery Factor and New Mexico Rate No. 41 Federal Tax Credit Factor will be applied as set forth in each respective tariff filed with the NMPRC.

1.7. NMSU and EPE agree that the metered energy (kWh) and demand (kW) monthly billing of the Grid Resource Power and the Project Power will be aggregated for purposes of cost allocation and rate design in any future base rate proceeding.

ARTICLE 2. PROJECT ENERGY CHARGE:

2.1. On and after the Commercial Operation Date, Project Power delivered by EPE to NMSU will be provided in accordance with the Agreement and pursuant to the provisions of this Exhibit A.

2.2. If the Commercial Operation Date falls outside of the first day of a regularly scheduled billing period under Rate No. 26, the first invoice for Project Power, which includes both the Project Energy Charge and the Project Credit described in Article 6 of this Exhibit A, will be prorated to account for the partial billing period.

2.3. A Project Energy Charge of $0.08289 per kWh will be assessed for all Project Power. The Project Energy Charge is inclusive of all benefits accruing to EPE as a result of any and all applicable tax or other available incentives, accounting treatments, or other incentives applicable to this project that are in effect before the start date of the Agreement. EPE will receive these incentives after Agreement award. The Energy Charge will not be adjusted as a result of EPE's receipt, or lack thereof, of any such incentive after Agreement award.

2.4. The Project Energy Charge will not escalate for the duration of the Agreement.

2.5. There is no monthly customer-meter charge.

2.6. There is no monthly minimum charge.

ARTICLE 3. DELIVERY SCHEDULE:

3.1. EPE anticipates beginning delivery of Project Power to NMSU no later than 11 months after receipt of NMPRC Approval. Prior to Commercial Operation, EPE will deliver and bill all electrical power to NMSU, including the Test Power, under Rate 26.

ARTICLE 4. TERMS AND CONDITIONS FOR PROJECT ENERGY CHARGE:

4.1. The Project Energy Charge established in Section 2.3 will be in effect for the Term, unless otherwise agreed upon by both parties, in accordance with the terms and conditions of the Agreement.

4.2. At the mutual consent of both parties, the Project Energy Charge may be revised to reflect changes in the life cycle cost of the Project with the removal and replacement of battery storage components in approximately year 16 of the Project's life cycle.

4.3. Any Agreement amendment will be subject to NMPRC review and approval.

ARTICLE 5. TEST POWER:

5.1. Any Test Power that is delivered to the Project Power Point of Delivery prior to the Commercial Operation Date will be billed pursuant to Article 3 above.

ARTICLE 6. PROJECT CREDITS:

6.1. During the Summer Months, a capacity credit will be provided to NMSU, equal to the maximum metered 30-minute output of the Project, as measured during the hours between 12:00 pm to 6:00 pm (MPT), Monday through Friday, multiplied by the Avoided Capacity Credit, which is initially set at the avoided capacity cost used to determine the cost effectiveness of EPE's most recently NMPRC-approved Energy Efficiency and Load Management Plan, NMPRC Case No. 18-00116-UT. Avoided Capacity Credits for calendar years applicable to the Term but not included in Attachment 1, will utilize the amount projected for calendar year 2045. The Avoided Capacity Credits applicable for each calendar year of the Term are provided in Attachment 1 to this Exhibit A and will not be adjusted during the Term except as part of the Periodic Review.

6.2. An energy credit will be provided to NMSU for all Project Power delivered to the Project Power Point of Delivery during the billing cycle multiplied by the non-fuel variable energy rate, currently calculated as $0.007255 per kWh, based on the non-fuel variable energy cost of supplying power embedded in Rate No. 26 charges ("Energy Credit"). The Energy Credit is subject to change in EPE's future base rate proceedings.

ARTICLE 7. PERIODIC REVIEW OF PROJECT ECONOMICS:

7.1. It is the expectation of both NMSU and EPE that the net economic impact to NMSU of the Project will be net cost neutral or positive over the Term. NMSU and EPE expressly agree that the rates and credits included in this Exhibit A provide for an expected net cost neutral or positive impact on a NPV basis to NMSU at the conclusion of the Term based on the forecasts agreed to by both Parties herein.

7.2. NMSU and EPE agree to meet no less than once every five years on the anniversary of the Commercial Operation Date, or at another such time as mutually agreed to by both Parties, to review the net cash flow performance of the Project and to adjust, if necessary, the Avoided Capacity Credit to ensure that the expected NPV of the Project will be a net cost neutral or positive impact to NMSU over the Term ("Periodic Review").

7.3. For purposes of reviewing and adjusting rates and credits in the analysis of the net cost neutral or positive target, the Parties agree to the following:

7.3.01 Attachment 2 to this Exhibit A represents the expected cash flow economic model to be used to determine the net impact to NMSU.

7.3.02 For purposes of the updated NPV calculations, the Historical Period is defined as the term of the Project up to the year in which the NPV review is performed.

7.3.03 Actual Project Power and the actual Summer Month's Project Contribution will be utilized for the Historical Period, and an updated forecast for the remaining Term of the Project may be used if the prior forecast is determined to be no longer representative of future Project output.

7.3.04 The Project Energy Charge will not change over the Term except to the extent Project costs are adjusted in year 16 of the Project's life cycle for battery replacement pursuant to Section 4.2 of this Exhibit A.

7.3.05 Actual RPS Rider, FPPCAC, and Energy Credit rates will be utilized for the Historical Period, and an updated forecast for the remaining Term of the Project may be used if the prior forecast is determined to be no longer representative of future rate and rider charges.

7.3.06 Avoided Capacity Credits from Attachment 1 or the most recently updated Attachment 1 to this Exhibit A developed by EPE and NMSU in accordance with any previous Periodic Review will represent the updated forecast of Avoided Capacity Credits for the remaining Term.

7.3.07 Based on Historical Period and forecasted Project production, rates, and credits, NPV of cash flows for the entire Term will be recalculated.

7.3.08 In the event the expected NPV of cash flows for the Project over the Term is determined to be negative, calculated as of the Commercial Operation Date, during any Periodic Review, Attachment 1 to this Exhibit A will be scaled for the remaining Term to maintain an expected net cost neutral impact to NMSU.

7.3.09 Six months after the Term and decommissioning of the Project, EPE will provide a Balance of Agreement Payment to NMSU, if necessary. For the avoidance of doubt, if the Project over the Term is cost neutral or positive to NMSU, EPE will not owe a Balance of Agreement Payment to NMSU.

ARTICLE 8. ALL OTHER TERMS AND CONDITIONS:

8.1. In all other respects, EPE and NMSU agree to be bound by and comply with all terms and conditions of EPE's New Mexico tariffs, except to the extent those terms and conditions are inconsistent with the express terms and conditions set forth in this Exhibit A as it is approved by the NMPRC.

8.2. The rates calculated as listed above will be in effect for the Term, unless otherwise agreed upon by both parties to the Agreement, in accordance with the terms and conditions of the Agreement.

8.3. Definitions.

8.3.01 "**Avoided Capacity Credit**" has the meaning given in Section 6.1 of this Exhibit A.

8.3.02 **"Balance of Agreement Payment"** means an amount due to NMSU that is the difference between zero and the actual net cost of the Project to NMSU, calculated on a NPV basis as of the Commercial Operation Date, at the end of the Term.

8.3.03 **"Energy Credit"** has the meaning given in Section 6.2 of this Exhibit A.

8.3.04 **"Energy Efficiency and Load Management Plan"** means that application and related reports filed with the NMPRC in accordance with section 17.7.2 NMAC.

8.3.05 **"FPPCAC"** has the meaning given in Section 1.6 of this Exhibit A.

8.3.06 **"Historical Period"** has the meaning given in Section 7.3.02 of this Exhibit A.

8.3.07 **"NPV"** means net present value.

8.3.08 **"Periodic Review"** has the meaning given in Section 7.2 of this Exhibit A.

8.3.09 **"Project Credit"** means the combination of the Energy Credit and the Avoided Capacity Credit.

8.3.10 **"Project Energy Charge"** means a charge for Project Power on a per kWh basis as described in Article 2 of this Exhibit A.

8.3.11 **"Rate 26 Demand Charge"** means the demand charge in Rate 26.

8.3.12 **"Rate 26 Energy Charges"** means the energy charges in Rate 26.

8.3.13 **"RPS Rider"** has the meaning given in Section 1.6 of this Exhibit A.

8.3.14 **"Summer Month's Contribution"** means the maximum metered 30-minute output of the Project during each Summer Month as measured between the hours of 12:00 pm to 6:00 pm (MPT), Monday through Friday.

ATTACHMENT 1
AVOIDED CAPACITY CREDIT TABLE

Table 86: Avoided Costs

Year	Avoided Energy ($/kWh)	Avoided Capacity ($/kW)
2019	$0.0144	$96.69
2020	$0.0159	$98.64
2021	$0.0163	$100.62
2022	$0.0167	$102.64
2023	$0.0158	$104.71
2024	$0.0158	$106.82
2025	$0.0161	$108.78
2026	$0.0171	$110.77
2027	$0.0174	$112.81
2028	$0.0178	$114.88
2029	$0.0182	$117.11
2030	$0.0185	$119.39
2031	$0.0189	$121.72
2032	$0.0193	$124.09
2033	$0.0197	$126.51
2034	$0.0202	$128.97
2035	$0.0206	$131.49
2036	$0.0210	$134.05
2037	$0.0215	$136.66
2038	$0.0219	$139.32
2039	$0.0224	$142.03
2040	$0.0229	$144.80
2041	$0.0234	$147.62
2042	$0.0239	$150.50
2043	$0.0244	$153.43
2044	$0.0249	$156.42
2045	$0.0254	$159.47

ATTACHMENT 2
TERM NET PRESENT VALUE

ATTACHMENT 1
Term Net Present Value (FPPCAC Energy Cost)

A	B	C	D	E	F= C*E	G	H=C*G	I	J=C*I	K	L=C*K	M	N=D*M	O=F+H+J+L+N	P
Yr	Actual / Estimate	Annual Project Power kWh	Total Peak Project Contribution kW	Project Power Rate $/kWh	Project Costs $	RPS Rider $/kWh	Avoided RPS Cost $	Fuel Credit Rate $/kWh	Avoided Fuel Cost $	Base Rate Non-Fuel Variable Cost $/kWh	Base Rate Non-Fuel Variable Credit $	Avoided Capacity Cost $/kW-yr	Avoided Capacity Credit $	Net Cost $	Net Present Value $
1	Estimate	8,764,634	3,604.80	$ 0.08289	$ 726,501	$ 0.010154	$ (88,996)	$ 0.01926	$ (168,780)	$ 0.007255	$ (63,591)	$ 98.64	$ (355,578)	$ 49,547	$ 46,314
2	Estimate	8,723,550	3,587.90	0.08289	723,095	0.010154	(88,579)	0.01959	(170,859)	0.007255	(63,293)	100.62	(361,015)	39,349	34,381
3	Estimate	8,662,044	3,562.61	0.08289	717,997	0.010154	(87,954)	0.01992	(172,548)	0.007255	(62,846)	102.64	(365,666)	28,982	23,671
4	Estimate	8,599,792	3,537.00	0.08289	712,837	0.010154	(87,322)	0.02026	(174,223)	0.007255	(62,395)	104.71	(370,360)	18,537	14,152
5	Estimate	8,538,704	3,511.88	0.08289	707,773	0.010154	(86,702)	0.02060	(175,931)	0.007255	(61,951)	106.82	(375,139)	8,049	5,744
6	Estimate	8,477,951	3,486.89	0.08289	702,737	0.010154	(86,085)	0.02096	(177,655)	0.007255	(61,511)	108.78	(379,304)	(1,818)	(1,213)
7	Estimate	8,417,561	3,462.05	0.08289	697,732	0.010154	(85,472)	0.02131	(179,395)	0.007255	(61,073)	110.77	(383,492)	(11,700)	(7,295)
8	Estimate	8,357,591	3,437.39	0.08289	692,761	0.010154	(84,863)	0.02168	(181,151)	0.007255	(60,637)	112.81	(387,772)	(21,662)	(12,625)
9	Estimate	8,297,063	3,412.49	0.08289	687,744	0.010154	(84,248)	0.02204	(182,900)	0.007255	(60,198)	114.88	(392,027)	(31,631)	(17,232)
10	Estimate	8,237,054	3,388.78	0.08289	682,844	0.010154	(83,648)	0.02242	(184,695)	0.007255	(59,769)	117.11	(396,790)	(42,059)	(21,418)
11	Estimate	8,179,098	3,363.98	0.08289	677,965	0.010154	(83,051)	0.02280	(186,500)	0.007255	(59,342)	119.39	(401,625)	(52,552)	(25,016)
12	Estimate	8,120,683	3,339.95	0.08289	673,123	0.010154	(82,457)	0.02319	(188,319)	0.007255	(58,919)	121.72	(406,539)	(63,110)	(28,081)
13	Estimate	8,062,673	3,316.09	0.08289	668,315	0.010154	(81,868)	0.02359	(190,158)	0.007255	(58,498)	124.09	(411,494)	(73,703)	(30,654)
14	Estimate	8,004,145	3,292.02	0.08289	663,464	0.010154	(81,274)	0.02399	(191,995)	0.007255	(58,073)	126.51	(416,473)	(84,352)	(32,794)
15	Estimate	7,946,937	3,268.49	0.08289	658,722	0.010154	(80,693)	0.02440	(193,866)	0.007255	(57,658)	128.97	(421,537)	(95,032)	(34,535)
16	Estimate	7,877,797	3,240.05	0.08289	652,991	0.010154	(79,991)	0.02481	(195,456)	0.007255	(57,156)	131.49	(426,035)	(105,648)	(35,888)
17	Estimate	7,842,921	3,225.71	0.08289	650,100	0.010154	(79,637)	0.02523	(197,900)	0.007255	(56,903)	134.05	(432,407)	(116,748)	(37,070)
18	Estimate	7,787,579	3,202.95	0.08289	645,512	0.010154	(79,075)	0.02566	(199,853)	0.007255	(56,502)	136.66	(437,715)	(127,632)	(37,882)
19	Estimate	7,745,425	3,185.61	0.08289	642,018	0.010154	(78,647)	0.02610	(202,156)	0.007255	(56,196)	139.32	(443,819)	(138,800)	(38,508)
20	Estimate	7,676,439	3,157.24	0.08289	636,300	0.010154	(77,947)	0.02655	(203,771)	0.007255	(55,695)	142.03	(448,423)	(149,536)	(38,779)
21	Estimate	7,621,722	3,134.73	0.08289	631,765	0.010154	(77,391)	0.02700	(205,764)	0.007255	(55,298)	144.80	(453,909)	(160,598)	(38,930)
22	Estimate	7,567,326	3,112.36	0.08289	627,256	0.010154	(76,839)	0.02746	(207,776)	0.007255	(54,904)	147.62	(459,447)	(171,710)	(38,908)
23	Estimate	7,513,307	3,090.14	0.08289	622,778	0.010154	(76,290)	0.02793	(209,809)	0.007255	(54,512)	150.50	(465,067)	(182,900)	(38,739)
24	Estimate	7,458,689	3,067.68	0.08289	618,251	0.010154	(75,736)	0.02840	(211,827)	0.007255	(54,116)	153.43	(470,674)	(194,101)	(38,428)
25	Estimate	7,405,448	3,045.78	0.08289	613,838	0.010154	(75,195)	0.02888	(213,899)	0.007255	(53,729)	156.42	(476,421)	(205,407)	(38,013)
26	Estimate	7,352,420	3,023.97	0.08289	609,442	0.010154	(74,656)	0.02938	(215,985)	0.007255	(53,345)	159.47	(482,233)	(216,777)	(37,499)
27	Estimate	7,299,792	3,002.33	0.08289	605,080	0.010154	(74,122)	0.02988	(218,096)	0.007255	(52,963)	159.47	(478,781)	(218,882)	(35,393)
28	Estimate	7,247,528	2,980.83	0.08289	600,748	0.010154	(73,591)	0.03039	(220,216)	0.007255	(52,584)	159.47	(475,353)	(220,997)	(33,403)
29	Estimate	7,194,707	2,959.11	0.08289	596,369	0.010154	(73,055)	0.03090	(222,338)	0.007255	(52,200)	159.47	(471,889)	(223,213)	(31,523)
30	Estimate	7,143,164	2,937.91	0.08289	592,097	0.010154	(72,532)	0.03143	(224,503)	0.007255	(51,826)	159.47	(468,508)	(225,272)	(29,750)

From 15-00127-UT

Non-Fuel Energy-Related Costs ('000's)	$	12,134	
Test Period Determinants (MWh)		1,607,587	
TCJA Credit in effect		3.8756%	
Non-Fuel Variable Cost $/kWh	$	0.00726	

Discount Rate: 6.98%
NPV: ($635,314)

Description:

A Year of estimate
C Estimated annual energy production from NMSU Project, including the operation of the battery. Assumes annual average degradation of 0.7% per year.
D Estimated maximum output of NMSU Project during on-peak periods, in the months of May through October. Based on estimated annual production from Column C.
E Monthly Rate for Project Power, rate per kWh of production (i.e, levelized cost of energy).
G RPS Rider No. 18, as of January 1, 2019.
I FPPCAC Rider No. 18, monthly weighted average rate per kWh, based on actual rates billed in 2018 at primary voltage level. Includes an annual escalator of 1.7%.
K Non-Fuel-Variable Cost from 15-00127-UT, system average rate adjusted for the Federal Tax Cuts and Jobs Act of 2017.
M Capacity Generation Credit based on projected Avoided Capacity Costs in EE/LM Plan filing approved in 18-00116-UT. Starting value as projected for 2020.
O Estimated Net Cost to NMSU
P Projected Net Present Value (in Year 0), at a discount rate of 6.98% (i.e, EPE's WACC)

ATTACHMENT 3
RATE 26

EL PASO ELECTRIC COMPANY

SEVENTH REVISED RATE NO. 26
CANCELLING SIXTH REVISED RATE NO. 26

STATE UNIVERSITY SERVICE RATE

APPLICABILITY:

This rate schedule is available to any public college or university's main campus for lighting, power and heating service. The Customer and the Company will determine whether a Customer qualifies for this rate schedule. A Customer qualifies for this rate schedule if the expected monthly demand will exceed 6,000 kilowatts (kW). A contract may be required in order to take service under this rate schedule.

TERRITORY:

Areas served by the Company in Dona Ana, Sierra, Otero and Luna Counties.

TYPE OF SERVICE:

Service available under this rate schedule will be determined by the Company and will be three phase at a standard Company approved voltage. All service will be taken at a single point of delivery designated by the Company.

MONTHLY RATES:

Customer Charge (per meter per month)	$135.00

Demand and Energy Charges	Summer (June through September)	Winter (October through May)
Demand Charge per Billing kW	$16.71	$8.85
Energy Charge per kWh: On-Peak	$0.09124	------
Energy Charge per kWh: Off Peak	$0.00428	$0.00428

The On-Peak Period shall be from 12:00 P.M. to 6:00 P.M, Mountain Daylight Time, Monday through Friday, for the months of June through September.

The Off-Peak Period shall be all other hours of the week not covered in the On-Peak Period.

MONTHLY MINIMUM CHARGE:

The Customer Charge plus applicable Demand Charge plus Tax Adjustment.

EFFECTIVE

JUL - 1 2016

REPLACED BY NMPRC

Final Order Case No. 15-00127-UT

Advice Notice No. 239

Signature/Title

Nathan T. Hirschi
Senior Vice President - CFO

EL PASO ELECTRIC COMPANY

SEVENTH REVISED RATE NO. 26 X
CANCELLING SIXTH REVISED RATE NO. 26 X

STATE UNIVERSITY SERVICE RATE

DETERMINATION OF BILLING DEMAND:

Maximum demand will be defined as the highest thirty (30) minute average kilowatt load determined by measurement.

The billing demand will be the highest of:

(a) the maximum demand, adjusted by the Meter Voltage Adjustment, if applicable, or X
(b) 65 percent of the highest measured demand established during the twelve (12) month period ending with the current month, or X
(c) a minimum of 6,000 kW.

X

POWER FACTOR ADJUSTMENT:

If the power factor at the time of the highest thirty (30) minute interval kilowatt demand for the entire plant is below 90% lagging, a power factor adjustment shall be calculated as follows:

ADJ = ((kW x .95 / PF) – kW) x DC, where
ADJ = Increase to applicable Demand Charge,
kW = Monthly Measured Demand, X
PF = Monthly measured Power Factor, and
DC = Demand Charge.

If the power factor measurement is greater than or equal to 90%, then no power factor adjustment will be made. X

METER VOLTAGE ADJUSTMENT: X

If electric service is delivered on the high voltage side of a Customer-supplied transformer, but metered on the low voltage side of the transformer, the following meter adjustments shall be made: X X X

Adjusted Maximum kW Demand = Metered Maximum kilowatts multiplied by 1.014 X
Billing kilowatt-hours = Metered kilowatt-hours multiplied by 1.020 X

If electric service is delivered on the low voltage side of a Company-owned transformer and metered on the high voltage side of the transformer, the following meter adjustments shall be made: X X X

EFFECTIVE

JUL – 1 2016

REPLACED BY NMPRC

BY Final Order Case No. 15-00127-UT

Advice Notice No. 239

Signature/Title

Nathan T. Hirschi
Senior Vice President - CFO

EL PASO ELECTRIC COMPANY

SEVENTH REVISED RATE NO. 26
CANCELLING SIXTH REVISED RATE NO. 26

STATE UNIVERSITY SERVICE RATE

Adjusted Maximum kW Demand = Metered Maximum kilowatts divided by 1.014
Billing kilowatt-hours = Metered kilowatt-hours divided by 1.020

FUEL AND PURCHASE POWER COST ADJUSTMENT CLAUSE (FPPCAC):

All service taken under this rate schedule is subject to the provisions of the Company's Rate Schedule No. 18 (FPPCAC).

TAX ADJUSTMENT:

Billings under this rate schedule may be increased by an amount equal to the sum of taxes payable under the Gross Receipts and Compensating Tax Act and of all other taxes, fees or charges (exclusive of ad valorem, state and federal income taxes) payable by the utility and levied or assessed by any governmental authority on the public utility service rendered, or on the right or privilege of rendering the service, or on any object or event incidental to the rendition of the service.

TERMS OF PAYMENT:

All bills under this rate schedule are due and payable when rendered and become delinquent twenty (20) calendar days thereafter. If the twentieth day falls on a holiday or weekend, the next Company business day will apply.

TERMS AND CONDITIONS:

Service supplied under this rate schedule is subject to the Company's Rules and Regulations on file with the New Mexico Public Regulation Commission and available for inspection at Company offices.

EFFECTIVE

JUL - 1 2016

REPLACED BY NMPRC

Final Order Case No. 15-00127-UT

Advice Notice No. 239

Signature/Title

Nathan T. Hirschi
Senior Vice President - CFO

EXHIBIT B
CANCELLATION SCHEDULE

Exhibit B

NMSU Solar Plus Storage
Cancellation Schedule

Year			Plant in Service	Accumulated Depreciation	Net Plant Investment
0			$7,838,226		
1				$ 261,274	7,576,952
2				$ 522,548	7,315,678
3				$ 783,823	7,054,403
4				$ 1,045,097	6,793,129
5				$ 1,306,371	6,531,855
6				$ 1,567,645	6,270,581
7				$ 1,828,919	6,009,307
8				$ 2,090,194	5,748,032
9				$ 2,351,468	5,486,758
10				$ 2,612,742	5,225,484
11				$ 2,874,016	4,964,210
12				$ 3,135,290	4,702,936
13				$ 3,396,565	4,441,661
14				$ 3,657,839	4,180,387
15	New			$ 3,919,113	3,919,113
16	Battery	$	1,279,850	$ 4,265,711	4,852,365
17				$ 4,612,308	4,505,768
18				$ 4,958,906	4,159,170
19				$ 5,305,503	3,812,573
20				$ 5,652,101	3,465,975
21				$ 5,998,698	3,119,378
22				$ 6,345,296	2,772,780
23				$ 6,691,893	2,426,183
24				$ 7,038,491	2,079,585
25				$ 7,385,088	1,732,988
26				$ 7,731,686	1,386,390
27				$ 8,078,283	1,039,793
28				$ 8,424,881	693,195
29				$ 8,771,478	346,598
30				$ 9,118,076	0
Total			$9,118,076		

Annual Depreciation 1	$	261,274
Annual Depreciation 2	$	85,323

EXHIBIT C
NMSU CERTIFICATE OF COVERAGE

NEW MEXICO
GENERAL SERVICES DEPARTMENT
RISK MANAGEMENT DIVISION

EVIDENCE OF COVERAGE

MEMORANDUM NUMBER:RMD-EOC-FY20

This Evidence of Coverage is used as a matter of information only and confers no rights upon the Certificate Holder. This Evidence of Coverage does not amend, extend, or alter the coverage afforded by the Tort Claims Act or the applicable Certificates of Coverage or policies for the type(s) of coverage listed below.

CERTIFICATE HOLDER INFORMATION

INSURED: NEW MEXICO STATE UNIVERSITY (95300)

LOSS PAYEE: TO WHOM IT MAY CONCERN

Coverage Period:
12:00 AM 07/01/19 to 11:59 PM 06/30/20

This is to certify that the Insured has the coverages listed below for the period indicated. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this Evidence of Coverage may be used or may pertain, the coverages indicated in this Evidence of Coverage are subject to all terms, exclusions, and conditions of the Certificates of Coverage and other insurance policy(s) to which this Evidence of Coverage pertains. Property and Liability Certificates of Coverage may be obtained by contacting the State of New Mexico's Risk Management Division at 505-827-2036.

Type of Coverage	Limit of Liability/Coverage
A) Liability i. General Liability ii. Automobile Liability iii. Law Enforcement iv. Civil Rights	Statutory Limit NMSA § 41-4-19
B) Workers Compensation.....	Statutory Limits NMSA § 52-1-1 et seq.
C) Property..... i. Auto Physical Damage	$550,000,000.00 Limit Actual Cash Value (ACV)
D) Medical Malpractice	Statutory Limit NMSA § 41-4-19
E) Boiler & Machinery.....	$100,000,000.00 Limit
F) Fine Arts.....	$300,000,000.00

Per 66-5-207, NMSA 1978, - A motor vehicle owned by the United States Government, any state, or political subdivision of the state, is exempt from the Mandatory Financial Responsibility Act.

Per 66-6-15(E), NMSA 1978, - A vehicle or trailer owned by and used in the service of the State of New Mexico or any county or municipality thereof need not be registered but must continually display plates furnished by the Transportation Services Division of the General Services Department.

Should any of the above coverages for the Covered Party be changed or withdrawn prior to the expiration date issued above, the State of New Mexico will notify the Certificate Holder, but failure of such notification shall impose no obligation or liability of any kind upon the State of New Mexico, its agents, or representatives.

Authorized Representative:		Clinton Nicley
Date Issued:	7-1-2019	Clinton Nicley, Director, Risk Management Division , GSD

N. M. S. A. 1978, § 41-4-19

§ 41-4-19. Maximum liability

Effective: July 1, 2008

A. Unless limited by Subsection B of this section, in any action for damages against a governmental entity or a public employee while acting within the scope of the employee's duties as provided in the Tort Claims Act, the liability shall not exceed:

(1) the sum of two hundred thousand dollars ($200,000) for each legally described real property for damage to or destruction of that legally described real property arising out of a single occurrence;

(2) the sum of three hundred thousand dollars ($300,000) for all past and future medical and medically related expenses arising out of a single occurrence; and

(3) the sum of four hundred thousand dollars ($400,000) to any person for any number of claims arising out of a single occurrence for all damages other than real property damage and medical and medically related expenses as permitted under the Tort Claims Act.

B. The total liability for all claims pursuant to Paragraphs (1) and (3) of Subsection A of this section that arise out of a single occurrence shall not exceed seven hundred fifty thousand dollars ($750,000).

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF EL PASO ELECTRIC COMPANY'S APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A SOLAR GENERATION/STORAGE PROJECT AT NEW MEXICO STATE UNIVERSITY AND FOR APPROVAL OF A SPECIAL RATE CONTRACT	)	**No. 19-00___-UT**
EL PASO ELECTRIC COMPANY, **Applicant.**	)	

AFFIDAVIT

STATE OF TEXAS)
) ss.
COUNTY OF EL PASO)

I, **James A. Schichtl,** hereby depose and state under oath that the information contained in the foregoing Direct Testimony of James A. Schichtl, together with all exhibits sponsored therein and attached thereto, is true and accurate based on my knowledge and belief.

SIGNED this 25th day of October, 2019.

JAMES A. SCHICHTL

SIGNED AND SWORN to before me on 25th day of October, 2019 by James A. Schichtl.

NOTARY PUBLIC

My commission expires:
June 20, 2022

LINDA PLEASANT
Notary Public, State of Texas
Comm. Expires 06-20-2022
Notary ID 13161350-1

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF EL PASO ELECTRIC COMPANY'S APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A SOLAR GENERATION/STORAGE PROJECT AT NEW MEXICO STATE UNIVERSITY AND FOR APPROVAL OF A SPECIAL RATE CONTRACT)		**Case No. 19-00___-UT**
EL PASO ELECTRIC COMPANY, Applicant.		

DIRECT TESTIMONY OF

OMAR GARCIA-BRACHO

ON BEHALF OF

EL PASO ELECTRIC COMPANY

NOVEMBER 2019

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EXHIBITS

EL PASO ELECTRIC COMPANY
DIRECT TESTIMONY OF
OMAR GARCIA-BRACHO

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Omar Garcia-Bracho. My business address is 100 N. Stanton Street, El Paso, Texas 79901.

Q. HOW ARE YOU EMPLOYED?

A. I am employed by El Paso Electric Company ("EPE" or the "Company") as the Supervisor of Renewables Development and Management.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND AND EXPERIENCE.

A. In 1995, I received a Bachelor of Science Degree in Electrical Engineering from the University of Texas at El Paso, and in 2001 a Master of Business Administration Degree from the University of Phoenix. In 2014, I received a Graduate Certificate in Public Utility Regulation and Economics from New Mexico State University. From 1995 to July 2005, I was employed by Harper Wyman (which later became Bruner Systems International de Juarez) as a Senior Manufacturing Engineer and Project Manager. In July 2005, I began employment with Siemens as a Senior Engineer and, in February 2010, I concluded my employment there as Engineering Manager/Supervisor of the manufacturing engineering team. My responsibilities

prior to joining EPE included manufacturing design and development, product validation, cost estimating, and considerable project management. My career with EPE began in 2010 as a Commercial Services Representative, and I have since served as a Senior Engineer in the Renewables and Emergent Technologies Department. In January 2019, I assumed my current position as Supervisor of Renewables Development and Management.

Q. WHAT ARE YOUR RESPONSIBILITIES WITH EPE?

A. As Supervisor of Renewables Development and Management, I am responsible for project management of the group's renewable energy projects, process improvement activities, review and development of emerging technologies, and renewable energy development.

Q. HAVE YOU PREVIOUSLY PRESENTED TESTIMONY BEFORE ANY UTILITY REGULATORY BODIES?

A. No.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide support for EPE's request for a

Certificate of Public Convenience and Necessity ("CCN") authorizing EPE to construct, own and operate a 3 megawatt ("MW_{AC}") ground-mounted, single axis solar photovoltaic ("PV") generating facility coupled with a 1 MW_{AC}, 4 megawatt-hour ("MWh_{AC}") Battery Energy Storage System ("BESS") on land within Arrowhead Park on the New Mexico State University ("NMSU") campus, located in Doña Ana County, New Mexico (the "NMSU Project"). Specifically, I will describe the NMSU Project, address the role of NMSU in the NMSU Project and, describe how EPE selected the developer for the NMSU Project.

Q. PLEASE OUTLINE THE MAIN POINTS OF YOUR TESTIMONY.

A. As mentioned previously, the proposed NMSU Project is a 3 MW_{AC} ground-mounted solar PV system coupled with a 1 MW_{AC}, 4 MWh_{AC} BESS system to be constructed in Arrowhead Park within the NMSU campus. NMSU approached EPE in 2018 with the objective to supply a portion of NMSU's electric load with renewable energy and storage as well as provide NMSU's students and faculty with an environment for educational and research purposes.

The timing of the NMSU Project will allow the generating plant to begin construction and qualify for the 26 percent federal Investment Tax Credit ("ITC"), which is scheduled to be reduced to 22 percent beginning on January 1, 2021.

Q. ARE YOU SPONSORING EXHIBITS TO YOUR TESTIMONY?

A. Yes, I am sponsoring the following exhibits:

- Exhibit OGB-1 Solar Irradiance Map;
- Exhibit OGB-2 Request for Proposals ("RFP") for New Mexico State University Solar and Energy Storage Project;
- Exhibit OGB-3 RFP's Best and Final Proposals Levelized Cost Ranking Table;
- Exhibit OGB-4 Map of Project Location; and
- Exhibit OGB-5 Total Capital Project Cost Breakdown.

III. DESCRIPTION OF THE PROPOSED NMSU PROJECT

Q. CAN YOU DESCRIBE THE NMSU PROJECT IN MORE DETAIL?

A. Yes. For the NMSU Project, EPE proposes to construct, own and operate a 3 MW_{AC} crystalline-silicon solar PV single-axis tracking system coupled with a 1 MW_{AC}, 4 MWh_{AC} BESS to be located on approximately 30 acres in Arrowhead Park within the NMSU campus. The site will be subleased from Arrowhead Center, Inc. at no cost to EPE[1]. The NMSU Project will be interconnected at the existing Tortugas Substation behind the revenue meter; thus, the energy from the NMSU

[1] Arrowhead Center, Inc. entered into a Master Ground Lease on February 6, 2007 with the Regents of NMSU. Arrowhead Park is a research park established by the NMSU Regents under the University Research Park Act, in Doña Ana County, New Mexico.

Project will be delivered directly to NMSU's electrical distribution system. The NMSU Project will be an EPE-owned resource dedicated to serve NMSU. Construction of the NMSU Project is expected to start in 2020 in order to qualify for the 2020 ITC benefits of 26 percent. The estimated capital construction cost for the NMSU Project is approximately $6.7 million. In addition, other capital costs for the NMSU Project include the following: interconnection costs of approximately $405,650, estimated AFUDC of approximately $262,783, fencing of $261,000, capitalized administrative and general ("A&G") costs, and other expenses of $200,004, for a total capital cost of $7.838 million. The NMSU Project is expected to be in commercial operation in 2021.

Q. WHAT IS THE BENEFIT OF A SINGLE-AXIS TRACKING SYSTEM?

A. A single-axis tracking system allows the PV panels to rotate around one axis to follow the sun as it moves across the sky over the course of a day. This increases the solar radiation absorbed by the panels and increases the capacity factor of the NMSU Project, as opposed to a fixed system which does not track or follow the sun. The NMSU Project is expected to generate 8,868 MWh_{AC} in the first year. This represents an approximate capacity factor of 33.7 percent in the first year of operation.

Q. IS NMSU LOCATED IN A SUITABLE REGION FOR THE PROPOSED NMSU PROJECT?

A. Yes. The NMSU Project utilizes solar energy, and, due to the many hours and the intensity of unimpeded sunlight the region receives, NMSU provides an ideal location to utilize sunlight for producing electricity. Please reference Exhibit OGB-1 for a solar irradiance map which shows that the region is ideal for solar energy.

Q. WHAT IS THE BENEFIT OF COUPLING A BATTERY ENERGY STORAGE SYSTEM WITH THE SOLAR PV SYSTEM?

A. A solar PV system by itself is an intermittent power resource that will only produce energy during the daylight. A BESS can provide several advantages to a solar PV system such as: additional capacity during grid system peak or during non-daylight hours; ancillary services to the system grid; and a smoother solar PV output curve amongst other benefits. However, the BESS can only be used for one specific function at a time, depending on the need and equipment capabilities. One of the major applications EPE plans for this resource is to use the BESS during system peak hours by charging it during non-peak daylight hours and discharging it during summer peak hours, providing the system with capacity when it is most needed. As I address more fully below, EPE plans to operate the BESS in coordination with

NMSU to provide NMSU with research and educational opportunities.

Q. PLEASE PROVIDE TECHNICAL AND UNIT CONFIGURATION INFORMATION FOR THE NMSU PROJECT.

A. For the solar PV system portion of the NMSU Project, the selected developer, Affordable Solar Inc. ("ASI"), anticipates using crystalline-silicon technology. The NMSU Project will consist of 10,836 crystalline-silicon modules and one central inverter. For the BESS portion of the NMSU Project, ASI anticipates using 18 Tesla PowerPack 2.5 System battery cabinets and two Tesla PowerPack bi-directional inverter cabinets.

Q. WHAT ARE ADDITIONAL FEATURES OF THE NMSU PROJECT?

A. Additional NMSU Project features include:

- Compatible with advanced 1500V plant architectures rated for operation in temperatures ranging from -40degC to 85degC (-40°F to 185°F);
- 10-year limited module workmanship warranty and 25-year linear energy output performance warranty;
- Tested by U.S. and European Institutes for reliability and safety and certified to:
  - UL (Underwriters Laboratory) 1703 and ULC 1703 Listed Class B Fire

rating (Class A spread of flame);

- PV Module safety standard IEC (International Electrotechnical Commission) 61730; and
- CE (European Conformity) Mark.

Features of the SMA Inverters[2] include:

- Max efficiency of 98.8 percent;
- Outdoor rated for operation in temperatures from -25degC to 60degC (-13°F to 140°F).

Features of the Racking System[3] include:

- Robust utility scale single-axis tracking system requiring minimal maintenance;
- Driven pile foundation that minimizes the use of concrete and reduces land/environmental disruption.

Features of the Tesla Battery Storage System include:

- Roundtrip efficiency range of 84.5 percent to 90 percent;
- Operational applications: peak shaving, emergency backup, capacity firming, load shifting, microgrid capabilities, transmission and distribution support, demand response, and ancillary services.

[2] SMA inverters convert the DC electrical current produced by the solar modules into AC current.
[3] The Racking System consists of a metal structure that supports the solar modules above the ground.

IV. ROLE OF NMSU IN THE NMSU PROJECT

Q. WHY DID NMSU APPROACH EPE FOR THE NMSU PROJECT?

A. NMSU has sustainability and renewable energy goals that would require on-campus behind-the-meter renewable energy solutions. The need to satisfy these goals prompted NMSU to approach EPE and establish a working relationship for the proposed NMSU Project.

Q. CAN YOU DESCRIBE NMSU'S INITIATIVES IN THE NMSU PROJECT?

A. Yes. NMSU's objectives are to have a portion of their electric utility load served with renewable energy and storage, and to provide NMSU's students and faculty a unique learning environment for educational and research purposes. NMSU plans to use and analyze Project data in its research and teaching regarding renewable energy generation, storage and dispatch, microgrids, cybersecurity, and related subjects.

Q. WHAT BENEFITS DOES THE NMSU PROJECT PROVIDE EPE AND NMSU?

A. This is the first utility-sized solar PV system coupled with BESS that EPE will incorporate into its fleet. By building the NMSU Project, NMSU is being provided a portion of their electric load with renewable energy and storage. In addition, EPE

is able to increase the amount of renewable energy in its system. The collaboration between EPE and NMSU will provide both entities with information concerning the capabilities and limitations of solar PV systems coupled with BESS; thus, improving EPE's critical knowledge and expertise to build, operate and maintain solar and energy storage technology. For example, through the NMSU Project, EPE will be able to collect and provide interval production and storage data to NMSU for further analysis or specific educational projects.

Q. WHAT IS THE PLAN FOR EPE'S OPERATION OF THE FACILITY?

A. As the NMSU Project owner, EPE will always have full operational control of the NMSU Project. During the months of May through October, EPE will operate the NMSU Project to maximize its output, adding value to EPE's system by providing system capacity when it is most needed. During the months of November through April, the system load is not as taxing and affords the opportunity to utilize the BESS at different time frames; thus, during these months, EPE will be able to operate the BESS at the request of NMSU for research and educational purposes.

V. REQUEST FOR PROPOSALS PROCESSES AND SOLICITATION

Q. IN PREPARING AND ISSUING THE SOLAR PLUS STORAGE RFP AND EVALUATING THE BID PROPOSALS, WAS EPE ABLE TO DRAW UPON

ANY PREVIOUS EXPERIENCE?

A. Yes. Since 2003, EPE has issued several RFPs to meet capacity and renewable energy resources needs. EPE drew upon this experience in preparing, issuing, and processing the RFP for a turnkey solar plus storage project. In addition, given EPE's now substantial experience with the acquisition and integration of solar resource projects into its electrical grid and resource mix, EPE has been able to refine its RFP process for needed solar facilities to include detailed requirements; thus, making the preparation, issuance and evaluation work as efficient as possible.

Q. PLEASE DESCRIBE THE COMPETITIVE BIDDING PROCESS.

A. On December 10, 2018, EPE issued the Solar Plus Storage RFP, a copy of which is included as Exhibit OGB-2. EPE analyzed the proposals focusing on economics, technical requirements, and financial qualifications. The evaluation process concluded that the proposal offered by ASI best met EPE's objectives listed in the RFP.

Q. HOW DID EPE GIVE NOTICE OF THE SOLAR PLUS STORAGE RFP?

A. On December 10, 2018, the Solar Plus Storage RFP was publicly announced via press release and posted on EPE's website. EPE also issued an e-mail announcement to 21 bidders that are currently active solar developers in EPE's

service territory. These are developers who have previously responded to EPE's solar related RFPs and/or have shown interest in bidding for smaller size utility-scale solar projects. Interested parties were provided eight weeks to respond to the RFP.

Q. HOW MANY PROPOSALS DID EPE RECEIVE IN RESPONSE TO THE RFP?

A. In response to the Solar Plus Storage RFP, EPE received five proposals for the NMSU Project.

Q. CAN YOU SUMMARIZE THE PROCESS USED BY EPE TO EVALUATE THE BIDS IT RECEIVED IN RESPONSE TO ITS SOLAR PLUS STORAGE RFP?

A. Yes. After receiving the bids, EPE determined compliance with the stated requirements of the Solar Plus Storage RFP by evaluating overall responsiveness and bidder financial ability and capability. In addition, bids were checked for timeliness and to ensure that all the necessary requirements were submitted. EPE evaluated the proposals on a 30-year levelized least cost basis. From the five original bids, three bidders were shortlisted and were requested to submit a best and final offer. As per the allowed options in the RFP, each short list bidder provided

two solar PV system sizes of 2 and 3 MW_{AC} and two energy storage system sizes of 1 MW_{AC}, 2 MWh_{AC} and 1 MW_{AC}, 4 MWh_{AC}.

Q. WHAT SOLAR PLUS STORAGE PROPOSAL WAS SELECTED AS A RESULT OF THE SOLAR PLUS STORAGE RFP PROCESS?

A. The proposal selected is a 3 MW_{AC} solar PV single axis tracking system coupled with a 1 MW_{AC}, 4 MWh_{AC} BESS proposed by ASI. The proposed system meets all requirements stated in the RFP. The levelized cost rankings for the best and final proposals are detailed in Exhibit OGB-3.

Q. DESCRIBE THE LAND REQUIREMENTS FOR THE NMSU PROJECT.

A. As part of the educational and research purpose of the NMSU Project, NMSU required that the NMSU Project be located within Arrowhead Park on the NMSU campus in EPE's service territory. The site NMSU chose provides several key positive characteristics for the construction of the NMSU Project such as: location, suitable acreage, availability of nearby interconnection infrastructure, and terrain conditions. EPE also conducted a site visit to identify and evaluate issues that could increase development costs such as flood zones, arroyos, and water ways as well as existing infrastructure such as buildings, billboards, and utility infrastructure lines. The map of the selected site is included as Exhibit OGB-4.

Q. DID EPE ALREADY HAVE LAND THAT MET THE REQUIREMENTS FOR THE NMSU PROJECT?

A. No. EPE did not have land that met all the NMSU Project's requirements.

Q. HAS THE SUBLEASE BEEN EXECUTED?

A. Yes. The sublease was executed by EPE and Arrowhead Park on November 15, 2019. New Mexico Public Regulation Commission approval of the CCN and Special Rate Contract are conditions precedent of the sublease agreement.

VI. ESTIMATED NMSU PROJECT COST

Q. WHAT ARE THE ESTIMATED TOTAL CAPITAL PROJECT COSTS?

The estimated capital construction cost to be paid to ASI for the NMSU Project is approximately $6.7 million. In addition, other capital costs for the NMSU Project include the following: interconnection costs of approximately $405,650, estimated AFUDC of approximately $262,783, fencing of $261,000, capitalized administrative and general ("A&G") costs, and other expenses of $200,004, for a total capital cost of $7.838 million. Please refer to Exhibit OGB-5. The costs listed above do not reflect the 26 percent federal ITC available for renewable energy projects. The ITC is considered in EPE's levelized cost of energy and capacity

charge calculations as presented by EPE witness Julio C. Aguirre.

Q. PLEASE PROVIDE MORE DETAIL ABOUT THE ITC CREDIT.

A. The amount of the ITC depends on when the project begins construction. To qualify for the 26 percent ITC, construction of a significant nature must begin or payment of at least 5 percent of the cost of the energy property must occur before January 1, 2021, and be completed before January 1, 2024. Failure to meet these deadlines will result in a reduction of the ITC to 22 percent if construction starts in 2021 and a further drop to 10 percent if construction starts in 2022. EPE, however, intends to begin and complete construction in accordance with ITC requirements for the 26 percent rate, with construction of the NMSU Project starting in 2020 and being completed in 2021.

Q. HOW WERE INTERCONNECTION COSTS ESTIMATED?

A. EPE estimated interconnection costs based on EPE's historical interconnection costs for other solar facilities.

Q. WHAT ARE THE OPERATING COSTS FOR THE NMSU PROJECT?

A. The total operating costs are estimated to be $6.3 million, which include operations and maintenance ("O&M") expenses and other expenses such as taxes, insurance,

and inverter and estimated battery replacement costs.

Q. HOW DID EPE ASSESS THE ADEQUACY OF ASI'S PROPOSAL FOR THE NMSU PROJECT?

A. EPE reviewed the technical sufficiency of ASI's proposal and evaluated the financial viability of the NMSU Project on a 30-year levelized cost basis. The analysis demonstrated that ASI's proposal for the NMSU Project provides the lowest levelized cost of energy.

VII. CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY

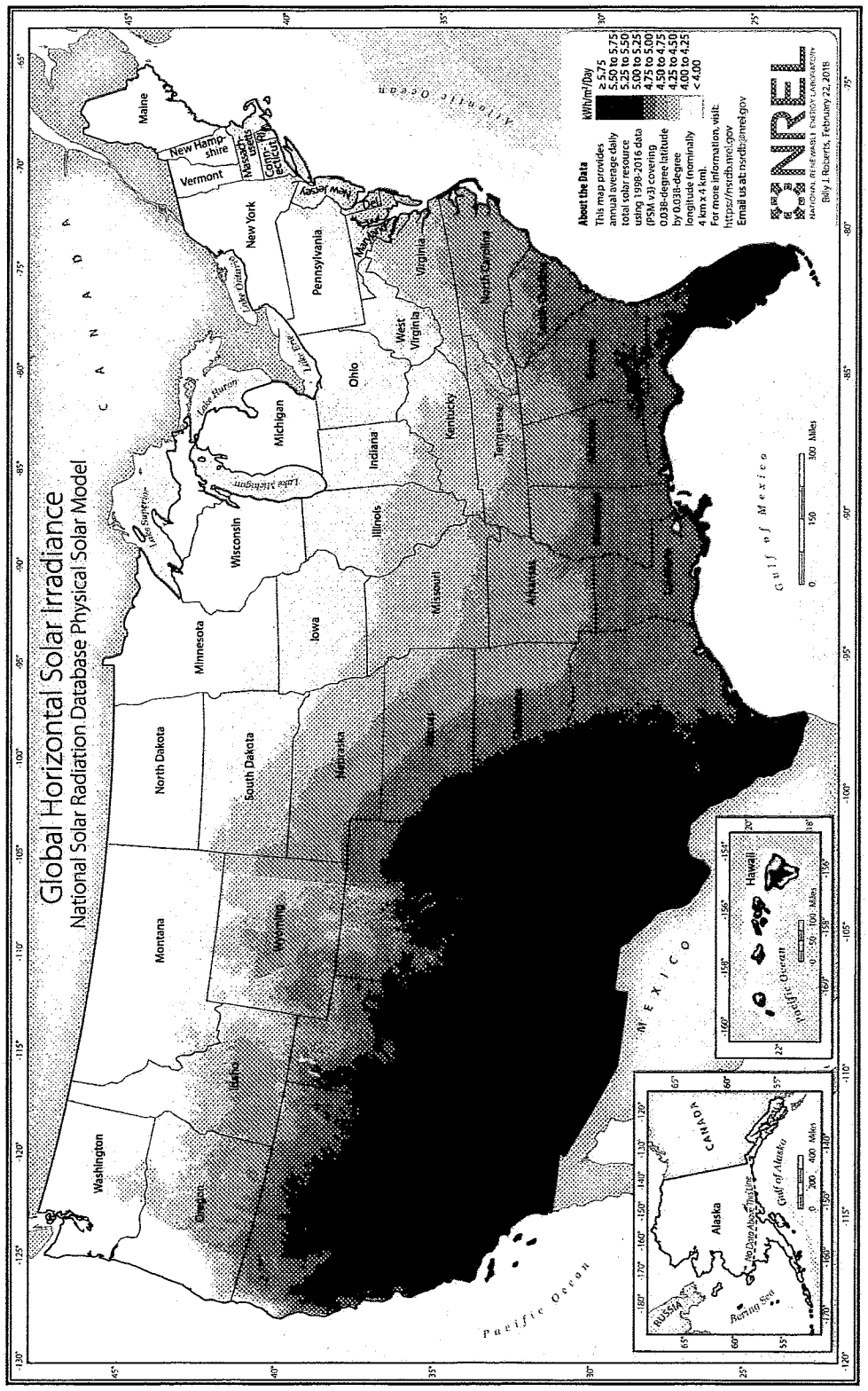
A. In support of EPE's request for a CCN for the NMSU Project, my testimony provides a description of the NMSU Project, consisting of a 3-MW solar PV facility coupled with a 1-MW, 4-MWh BESS – EPE's first utility-scale energy storage system. I also describe the associated capital cost of the proposed NMSU Project, which total approximately $7.838 million and include the capital construction cost of the NMSU Project plus the interconnection costs. The capital costs of the NMSU Project were obtained through a competitive RFP process and EPE selected the developer that complied with the RFP requirements and provided the lowest levelized cost of energy. Finally, I address the renewable energy goals and

educational objectives of NMSU as well as EPE's objective of gaining further experience operating and maintaining solar and energy storage technology.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

Solar Irradiance Map



REQUEST FOR PROPOSAL

FOR

NEW MEXICO STATE UNIVERSITY SOLAR AND ENERGY STORAGE PROJECT

EL PASO ELECTRIC COMPANY

P.O. Box 982
El Paso, Texas 79960

ISSUE DATE: December 10, 2018

The Electric Company
El Paso Electric

TABLE OF CONTENTS

1.0 INTRODUCTION

El Paso Electric Company ("EPE" or the "Company") is soliciting a turnkey proposal for the engineering, procurement and construction ("EPC") of a microgrid ready, utility-scale solar energy generating facility to include an AC-coupled Energy Storage System ("ESS") option, collectively, the ("Project"). EPE is open to consider all ESS technologies proposed. The Project is to be built on land provided by New Mexico State University ("NMSU"), the location of which is shown in attachment 8.3.

The proposal from Bidders responding to this RFP is for EPE's ownership of the Project identified in this document. Bidders shall submit a proposal for EPE's purchase of the Project. The Project proposed can be the solar facility only, ESS only, or both solar facility and ESS. EPE is expecting four types of proposals with the ratings below. Bidders can submit more than one proposal.

- 2 MW_{AC} Solar
- 3 MW_{AC} Solar
- 1 MW/2 MWh ESS
- 1 MW/4 MWh ESS

The objective of the Project is to supply a portion of NMSU's electric utility load with renewable energy and storage as well as to provide NMSU's students and faculty with a learning laboratory for educational and research purposes. EPE desires to increase the amount of renewable energy on its system while at the same time gaining further experience with operating and maintaining solar and energy storage technologies.

EPE will evaluate proposals taking into consideration overall Project cost and Bidder experience. EPE also requires that the proposal utilize local distributors and contractors where possible and requires that the Bidder provide details on how it will accomplish this requirement.

1.1 Purpose

EPE seeks a proposal ("Proposal") for the complete design, procurement of all material and equipment, construction and startup of the Project, which will be located in Las Cruces, New Mexico. The Project should target maximum energy output and minimum levelized cost of energy. The Project will be owned by EPE and EPE intends to take advantage of the price benefit provided by any applicable tax credits effective at the end of 2020. The ESS must be charged by the solar photovoltaic ("PV") facility 100% of the time on an annual basis to claim the full value of the Federal Investment Tax Credit. The Project must be on-line and

generating electricity as stated in RFP Schedule. EPE will take into consideration the overall cost of the Project, Bidder's experience (including megawatts of financed projects), partnerships with financial entities and Bidder's use of local distributors/manufacturers and contractors.

Eligibility of Sites
For the purpose of this solicitation, EPE will NOT consider any proposal for the Project to be developed on a site different than the site provided by EPE.

1.2 Communications

All communications from Bidders to EPE, including questions regarding this RFP, must be submitted via email. Based upon the nature and frequency of the questions EPE receives, EPE will choose to respond to Bidders either directly or address the question through a conference call.

All submittals, inquiries, and communications related to this RFP should be directed solely to the following EPE point of contact:

Julie Bañuelos
Contract Negotiator
P.O. Box 982
El Paso, Texas 79960
Fax: (915) 543-2209
E-mail: julie.banuelos@epelectric.com
And E-mail: scm@epelectric.com

All communications between Bidder and EPE shall be conducted via email. Oral communications are discouraged and shall not be binding upon EPE.

1.3 Confidentiality of Responses

EPE will consider proposals and associated information submitted by Bidders to be confidential. It is the Bidders' responsibility to clearly indicate in its proposal what information it deems to be confidential. Bidders may not mark an entire proposal as confidential, but instead must mark specific information on individual pages to be confidential in order to receive confidential treatment. Except as required by regulatory reviews, EPE will use reasonable efforts to avoid disclosure of information designated as confidential to persons other than those involved with the evaluation, selection and any subsequent negotiations. To the extent that Bidders receive information from EPE, Bidders shall maintain the confidentiality of such information and such information shall not be available to

any entity before, during or after this RFP process unless required by law or regulatory order.

Bidders should be aware that information received in response to this RFP will be subject to the review of applicable local, state and/or federal regulatory agencies, specifically including, but not limited to, the New Mexico Public Regulation Commission ("NMPRC") and Public Utilities Commission of Texas ("PUCT"). All Bidders shall cooperate with EPE in making technological descriptions, pricing and other contract terms available for review as part of any regulatory approval process as EPE deems necessary or appropriate. EPE will follow applicable orders and rules of the NMPRC, PUCT and/or other applicable agency, including any protective orders issued, such as disclosure of price, terms or other information as required; therefore, EPE cannot promise that information marked as confidential will not be publicly disclosed, and, as such, EPE cannot be held liable for any information that is ordered to be released or that is inadvertently released.

Moreover, information submitted in response to this RFP may become subject to federal or state laws pertaining to public access to information as a result of any reviews conducted by the aforementioned agencies. EPE shall not be liable for the release of any information subject to disclosure under any laws pertaining to public access to information.

2.0 EL PASO ELECTRIC COMPANY SYSTEM DESCRIPTION

2.1 Company Overview

EPE is a public utility engaged in the generation, transmission and distribution of electricity in an area of approximately 10,000 square miles in the Rio Grande Valley in west Texas and south central New Mexico as illustrated in Figure 1. EPE serves approximately 421,000 residential, commercial, industrial and wholesale customers. EPE distributes electricity to retail customers principally in El Paso, Texas, and Las Cruces, New Mexico, utilizing remote and local generating stations.

2.2 Existing Generation Resources

As of 2017, EPE owns approximately 2,084 MW of net installed capacity. EPE owns 633 MW of generating capacity at the Palo Verde Nuclear Generating Station. Of EPE's net total installed capacity, EPE owns 1,443 MW of local natural gas fired generating resources which include 64 MW at its Copper Generating Station, 275 MW at its Rio Grande Generating Station, 752 MW at its Newman Generating Station and 352 MW at Montana Power Station. EPE also receives a

total of approximately 115 MW of solar capacity from several solar projects located in its service territory.

2.3 El Paso Electric Property

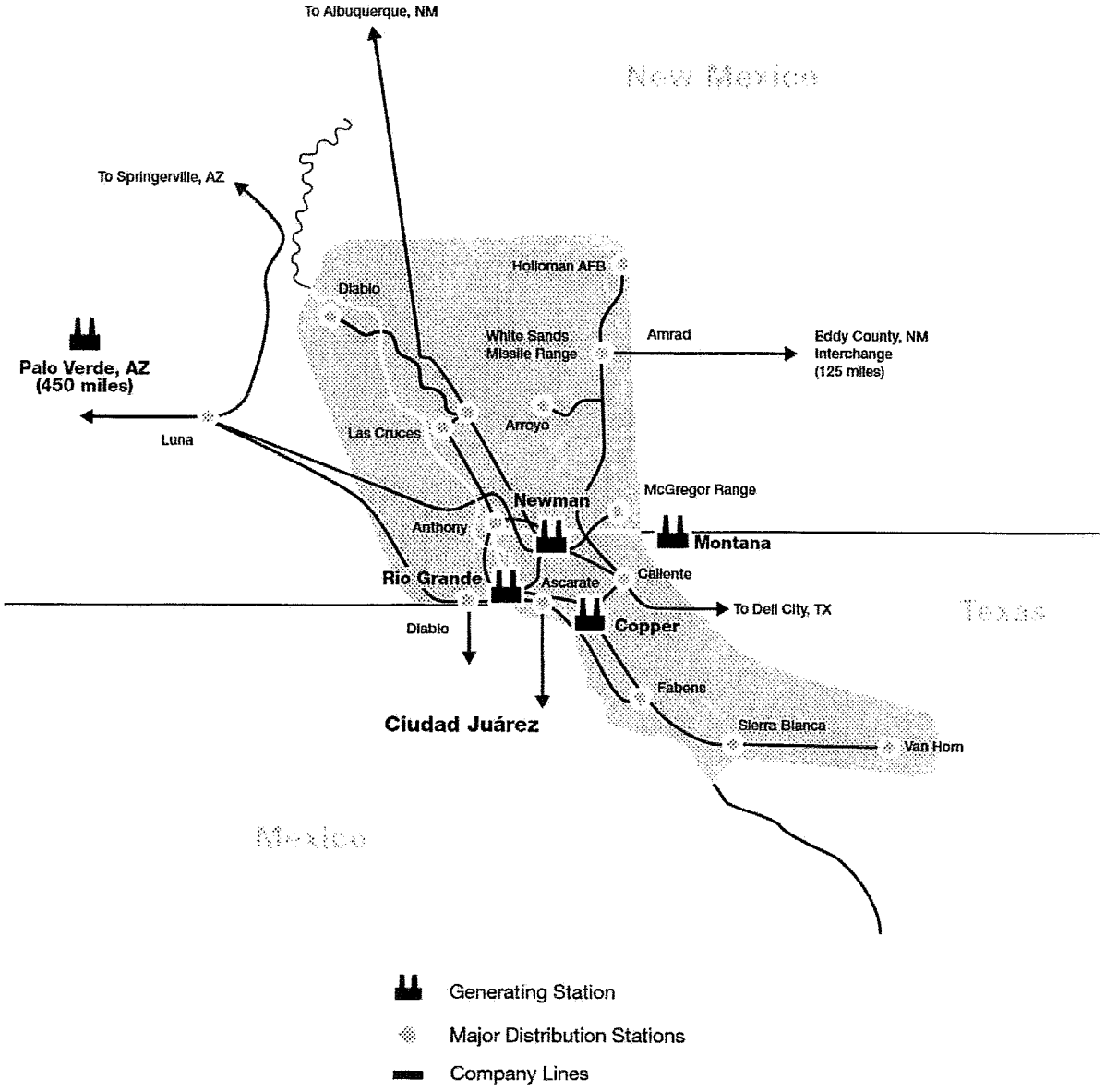


Figure 1 - EPE Service Territory and Electric System

3.0 ELIGIBLE PROJECT INFORMATION

3.1 Eligible Project Structures

EPE will own the Project contracted through this solicitation process. EPE is interested in selecting the project that meets all stated requirements and provides the best value for EPE to include bidder experience in building similar types of utility-scale facilities, quality of major equipment and lowest total cost over the life of the facility for the expected energy output.

3.2 Eligible Generation Resources

Technology Requirements: The Project must utilize proven reliable forms of solar PV and energy storage technologies. For PV submittals, the facility must utilize either crystalline or thin-film solar PV technology in a single axis tracking configuration. For energy storage submittals, EPE is open to consider any proven reliable technology that meets the Project requirements. EPE is interested in peak shaving, solar shifting and curve smoothing. All major equipment and components must be tier-one rated. In order to be considered, the type of technology and key components proposed must have a minimum of twelve (12) months of established production and use at a single plant location at a scale greater than or equal to the capacity of the facility to be built.

EPE will consider the proposal for the facility to be located at the Project site described in this RFP at Design Point Conditions (DPC) as specified by EPE in Appendix 8.4 applicable to the facility. The solar net capacity must represent the expected capacity during the first year of operation, less any losses once the energy is delivered to the facility meter on the project site. The DPC shall be 1000w/m2 and 65° Celsius module cell temperature. The ESS shall be metered separately, coupled with the solar facility and demonstrate its intended use at the point of interconnection, e.g. peak shaving, solar shifting, curve shifting. Bidders should also identify the expected annual degradation factors.

3.3 Project Site

The Project site is described in attachments 8.3 and 8.4. Details will be provided by EPE, subject to any executed land easement and/or lease between EPE and the entity with site control, if applicable. Bidder will have access to applicable land agreement terms and will be expected to comply with the terms of such agreements. The proposal shall be predicated on the use of the specified project site. The enclosed survey in attachment 8.4 shows the approximate acreage designated for the development of the Project (AREA 3 = 29.89 ACRES). Bidder is responsible for complying with all of the following items:

- Project Requirements and Technical Specifications (attachment 8.5)
- NMSU's Storm Water Management Program (attachment 8.6)
- Environmental Assessment, Interstate 10/Interstate 25, Interchange Improvements (attachment 8.7)
- Applicable zoning and code compliance requirements
- Lease and sublease agreements (to be provided to shortlist bidders)

The selected bidder will be responsible to produce and submit the following documents to the Company and Authorities Having Jurisdiction (AHJ) as necessary:

- ALTA site survey
- Storm Water Pollution Prevention Plan (SWPPP)
- Geotechnical report
- Project drawings
- Final certificate of inspection from AHJ

4.0 BIDDER TERMS

4.1 Pricing

a. Proposal shall include all costs necessary to deliver capacity and energy from the facility to the point of interconnection, but not limited to, construction of the facility in accordance with the negotiated EPC agreement. Bidders are allowed to submit more than one proposal; however, pricing shall be kept separate. All proposal terms, conditions and pricing are binding through the final selection notification and subsequent negotiations, as well as regulatory approvals.

b. By submitting a proposal, Bidder agrees to make available to the Company at any point in the bid evaluation process any financial data associated with the Bidder and its proposed project so that the Company may independently verify the Bidder submitted information. Financial data may include, but shall not be limited to, data supporting the economic life of the facility, the fair market value of the facility, and any and all other costs (including debt specific to the asset being proposed) associated with the Bidder's proposal. The Company may also use financial data contained in the Bidder's financial statements (e.g. income statements, balance sheets, etc.) as necessary.

5.0 RFP SCHEDULE

The following schedule and deadlines apply to this solicitation:

RFP Issuance Date	December 10, 2018
Notice of Intent to Bid Due Date	December 17, 2018
Pre-Bid Meeting and Site Visit Date	January 8, 2019
Final Submission of Questions Date	January 14, 2019
Proposal Due Date	**February 5, 2019**
Shortlisted Bidders Notification Date	February 12, 2019
Best and Final Proposals Due Date	February 20, 2019
EPE Selection of Project Tentative Date	February 28, 2019
Contract Negotiations and Execution of EPC Agreements Tentative Date	April 5, 2019
Target Commercial Operation Date	January 30, 2020

EPE reserves the right to modify, cancel or withdraw this RFP and to revise the schedule specified above if, at EPE's sole discretion, such changes are necessary. To the extent reasonably possible, EPE will inform Bidder of any schedule change.

5.1 RFP Issuance

EPE will post its New Mexico State University Solar RFP in EPE's website (https://www.epelectric.com/doing-business-with-epe) on the RFP issuance date.

Bidders who intend to bid must confirm receipt of the RFP invitation via e-mail to EPE's point of contact, Julie Bañuelos at the following email addresses:

Julie.banuelos@epelectric.com
scm@epelectric.com

5.2 Notice of Intent to Bid

Bidders must submit a Notice of Intent to Bid, included as Attachment 8.1, by 5:00 pm Mountain Time (MT) on December 17, 2018. The Notice of Intent to Bid may be submitted via email or facsimile to Julie Bañuelos at julie.banuelos@epelectric.com and scm@epelectric.com or (915) 543-4073. Failure to submit a Notice of Intent to Bid will result in exclusion from participation in the bidding process.

It is the sole responsibility of the Bidder to ascertain that the Notice of Intent to Bid is received by EPE prior to the date and time specified.

Receipt of the Notice of Intent to Bid will be confirmed via e-mail response from EPE to the Bidder.

5.3 Final Submission of Bidder Questions

All questions related to the RFP must be submitted by January 14, 2019, via email to the following EPE representative to ensure a response prior to the proposal due date.

Julie Bañuelos
Contract Negotiator
100 North Stanton Street
El Paso, Texas 79901
Fax: (915) 543-4073
E-mail: julie.banuelos@epelectric.com

EPE will prepare responses to questions received and distribute the questions and responses to Bidders that filed a timely Notice of Intent to Bid. Responses will be distributed to such Bidders with the question included but will not identify who originally submitted the question. Any questions related to the RFP must be submitted in writing via email.

5.4 Proposal Due Date

Proposal must be received at EPE's offices to the attention of Julie Bañuelos, Contract Negotiator, 100 North Stanton Street, Location #121, EL Paso, Texas 79901 or by e-mail: julie.banuelos@epelectric.com by 5:00 pm Mountain Time (MT) on February 5, 2019. Any proposal submitted after the due date will be excluded from consideration. The proposal should be as complete as possible.

Two hard copies of the proposal must be submitted. In addition, a soft copy of the proposal must be submitted on a USB. Facsimile submittals shall be excluded from consideration.

Bidder is solely responsible for ensuring the proposal is received by EPE in accordance with the RFP instructions prior to the date and time specified, and at the place specified. EPE shall not be responsible for any delays in mail, or by common carriers, by transmitting errors, delays or mislabeling.

5.5 Tentative Date for Selection of Project

Following a review of technical, economic and potential environmental factors, EPE will make a determination if the project best meets its objectives and may initiate negotiations with Bidder. EPE intends to select a project and notify selected bidder by February 28, 2019.

5.6 Tentative Date for Contract Discussions

Should EPE choose to initiate negotiations with Bidder, the tentative date for commencement of contract negotiations with the Bidder is March 8, 2019. Any contract between EPE and Bidder will be conditioned upon approval by EPE's board of directors and prior regulatory approval by the NMPRC. EPE, at its sole discretion, reserves the right to reject any proposed contract(s) that result from this RFP for any reason including if subsequently issued regulatory approvals or authorizations are subject to conditions, including ratemaking treatments, which are unacceptable to EPE.

5.7 Proposal Validity

Bidder must hold its proposal open and valid for a period of two hundred forty (240) days following the submittal and during the time necessary to complete state regulatory approvals.

5.8 Proposal Information Requirements

Flexibility is afforded to Bidder regarding the facility's characteristics, as may be necessary to meet the requirements of the RFP. The proposal for the Project whose production bid amounts would exceed EPE's required AC capacity will not be considered.

The proposal must also provide an available energy profile (MWh or kWh) on an hourly basis for an average day in each month using the template provided by

EPE as Attachment 8.8. EPE reserves the right to request additional information from the Bidder regarding limitations or any other details related to the proposal.

EPE is responsible for obtaining any required NMPRC approvals, but Bidder agrees to provide necessary information and cooperation to facilitate such.approval. Bidder is responsible for acquiring and maintaining all applicable present and future federal, state and local approvals, licenses, permits or variances, and meeting specific requirements to construct and/or operate any generation facility and any associated interconnection facilities.

Bidder must provide a specific cost forecast for ongoing operations and maintenance ("O&M"). An O&M manual must be provided to EPE that details the maintenance schedule and cycle for the solar and the ESS components. EPE is also interested in receiving a proposal that includes ongoing O&M performed by Bidder or a third-party contractor under an O&M contract. Bidder should specify contract terms and operating cost guarantees for this option.

5.9 Interconnection Requirements

A meeting will be scheduled with the selected Bidder to discuss the interconnection requirements and associated costs.

The facility must deliver capacity and energy by directly interconnecting to the specified location.

For interconnection inquiries relating to this RFP, Bidder must pose questions via email or facsimile to EPE's point of contact:

Julie Bañuelos
Contract Negotiator
Fax: (915) 543-4073
E-mail: julie.banuelos@epelectric.com

6.0 SUBMITTAL PREPARATION INSTRUCTIONS

6.1 General Information

a. Currency
Prices and dollar figures must be clearly stated in nominal United States Dollars.

b. Schedule

Proposal shall be submitted in strict accordance with the RFP schedule.

c. Extensions
EPE will not grant any extensions to the RFP schedule and will not accept a late proposal. Any proposal received after the Proposal Due Date will not be considered and the Bidder will be notified of its elimination.

d. Reservation of Rights
EPE reserves the right to accept or reject, at its sole discretion, any proposal for any reason at any time after submittal. EPE also reserves the right to select an offer that is not the lowest price, if EPE determines that to do so would result in the best value to EPE's customers.

e. Failure to Comply
Failure to comply with all requirements of this RFP may result in the rejection of the applicable proposal at EPE's sole discretion.

f. No Liability
Bidders that submit a proposal do so without legal recourse against EPE or its directors, management, employees, agents, contractors or independent monitor based on EPE's rejection of any proposal or for failure to execute any agreement. EPE shall not be liable to Bidder or to any other party in law or equity, for any reason whatsoever relating to EPE's acts or omissions arising out of or in connection with this RFP. EPE further declares that it will incur no financial liability or obligation for Bidder's costs in preparing proposals.

g. Return of Documents
None of the materials received by EPE from Bidder in response to this RFP will be returned. Proposal and exhibits will become the property of EPE, subject to the provisions for confidentiality described in this document.

6.2 Proposal Content

The proposal must be prepared in accordance with the guidelines set forth in this section. Failure to follow the preparation instructions may result in the exclusion of the proposal from consideration. EPE reserves the right to conduct any further due diligence it considers necessary to fully understand and evaluate the proposal.

The proposal should be organized by section as described below. Each page of the proposal shall have the following information in top right corner.

- 2019 New Mexico State University Solar Project RFP
- Bidder Name

All of the following sections shall be completed or identified as "Not Applicable".

A complete proposal will include a thorough written discussion about the project, assembled in the following format:

Tab 1 - Executive Summary
Tab 2 - Project Description and Technical Information
Tab 3 - Project Costs
Tab 4 - Experience and Qualifications
Tab 5 - Distribution and Interconnection
Tab 6 -Company Financial Information

Tab 1 - Executive Summary

The Executive Summary should provide an overall description of the proposal. The description should include details about the type of solar and/or ESS technologies proposed and key benefits to EPE. At a minimum, the summary should specify the technology, size of project, first year energy output, project costs and an explanation of how and to what extent the Bidder intends to use local distributors/manufacturers and contractors, where possible, to construct the facility.

Tab 2 - Project Description and Technical Information

The proposal must include a thorough description of the project including, but not limited to, the following:

Project Description

The proposal must provide a comprehensive description of the project, including project name, location, nameplate ratings, accredited capacity, in-service date, equipment and configuration, permitting, interconnection plan, milestones, meteorological studies/performance simulation data and any other pertinent information.

Project Team

The proposal must provide the project team information which includes an organizational structure describing members' titles and functions in the organization as well as their responsibilities in the project e.g. engineering, project management, construction management, commissioning, procurement. Provide copies of the project team resumes and list relevant licenses, industry certifications, and experience in projects completed.

Equipment Description

At a minimum, the proposal should indicate for all major equipment the: (1) manufacturer; (2) model name and number; (3) key metrics and characteristics of the equipment; (4) performance history of the equipment; (5) terms of product, workmanship, performance and any other warranties and/or guarantees; (6) contracting status; and, (7) availability of equipment and planned delivery dates. Bidder should highlight any smart inverter features that add operational and resilience value to the project.

The following technical information should be discussed in this section, as applicable for the project proposed:

- Equipment data sheets,
- Major equipment manufacturers' point of contact,
- Description of technology and configuration,
- Summary of the commercial operating experience of major equipment,
- Solar/ESS layout and characteristics,
- Levels of efficiency,
- Solar DC and AC ratings,
- ESS DC and AC ratings, charge/discharge ratings,
- Annual degradation rate, ESS life cycle,
- Performance guarantees and warranties,
- Communications, controls, instrumentation, and protection devices,
- Facility limitations that may constrain operation,
- Hourly solar energy profile spreadsheet (attachment 8.8),
- Installation period,
- Quality assurance plans,
- Start-up standard testing,
- Factory and performance tests,
- Details of scheduled maintenance activities for major equipment, and
- Any other information that could impact the cost, construction schedule or output capability of the project.

Project Schedule

The proposal must provide a detailed schedule of project development activities and target completion dates for financing, engineering, permitting, equipment procurement, construction, startup and commissioning. Bidder should also describe the overall development strategy and work plan that will ensure that the project can be developed in time to meet the proposed commercial operation date.

Bidder must provide a high-level project development and completion schedule along with key milestone dates for the submitted proposal.

Risk Management and Insurance Program
Bidder shall provide a list of existing insurance contracts, listing policies by coverage, expiration date, insurer and limits per policy. Also, on a per coverage basis, provide current experience modifier and prior Loss History for the last three (3) years. Bidder shall also describe their Risk Management program if insurance coverage will derive from a parent company. Additional information may be requested based on information provided with the original proposal.

Operations and Maintenance ("O&M") Plan
Bidder shall describe the operations and maintenance plans or services for the generation facilities associated with their proposal. Bidder should discuss the current or expected O&M plan, including staffing, budget, management and control over any facility, authority over the O&M budget and guarantees on O&M costs. Additionally, Bidder should provide a description of the basic philosophy for performing O&M and include a discussion of contracting for outside services if applicable. Bidder is required to submit the cost of a three-year O&M service plan with the option to extend.

Permitting Status
Proposal must describe all federal, state and local permits that will be required for the project and state whether any permits have been secured, and if not, whether applications have been filed. Proposal must report on the status of any pending applications and any feedback from permitting agencies and describe the expected time frame to obtain the necessary permits after application submittal to agencies.

Regulatory and Environmental Compliance
Bidder is exclusively responsible for meeting all required federal, state and local permits, licenses, approvals and/or variances, current or future. Bidder is required to demonstrate that all required permits have been attained or provide a specific timeline for future permit approval.

Provide information on the following as applicable:

- Regulatory permits,
- Environmental Clearance for sensitive resources (such as cultural, protected species, etc.), and
- Other applicable permits.

Tab 3 -Project Cost

The proposal must clearly state the all-in turnkey installed project cost minus any interconnection costs. Bidder must provide a breakout of the costs such as modules, inverters, tracking system, transformers, ESS, balance of plant, installation labor, engineering, credit support, etc. Bidder must offer project

costs valid for at least two hundred forty (240) days following the proposal due date and during the time required for EPE to obtain NMPRC approval.

Tab 4 - Experience and Qualifications

The capability and experience of Bidder must be demonstrated to provide assurance that the Bidder, and any other party involved in the proposal, has adequate competence, resources and skill. Each proposal must include the following information as a minimum.

- Description of technical experience, specifically with respect to solar and energy storage facilities similar to those proposed and collaboration efforts with electric utilities, if any;
- Description of operations and maintenance experience including megawatts monitored and maintained, years providing O&M services, experience with different types of solar PV and ESS technologies and number of team members dedicated to O&M services;
- Description of completed projects, total megawatts installed and customers with a specific identification of projects on which the Bidder has served as an EPC contractor or similar role;
- Years in business;
- Description of financial backing;
- Description of major components directly manufactured by bidder and those that will be procured from another company;
- Description of licenses applicable at project location; and
- References for similar projects.

Tab 5 - Transmission, Distribution and Interconnection

EPE will identify the interconnection points.

Tab 6 - Financial Information

The financial viability of any proposal must be demonstrated to provide assurance that the Bidder, and any other party involved in the proposal, has adequate financial capability. Each proposal must include the following information at a minimum:

- Most recent financial report for the Bidder and any other parties involved, or most recent copy of certified public accountant ("CPA") audited (or Reviewed) income statement, balance sheet and cash flow statement;
- Provide Annual reports for the three most recent fiscal years that include CPA audited (or Reviewed) financial statements or CPA audited (or Reviewed) consolidated income statement and balance sheet for the three most recent fiscal years;

- Investment rating of Bidder or its parent company by Moody's and/or Standard & Poor's as applicable;
- Description of any current credit issues raised by rating agencies, banks, or accounting firms;
- Partnerships within the financial community;
- Description of construction financing for the project, include any financing commitments and available lines of credit;
- Megawatts of past financed projects; and
- Financial guarantees from affiliates or others, as appropriate;

EPE may request points of contact for financing partners/institutions and manufacturers providing lines of credit, a list of all lawsuits, regulatory proceedings or arbitration in which the Bidder or its affiliates or predecessors have been or are engaged in that could affect Bidder's performance of its bid. Bidders should identify the parties involved in such lawsuits, proceedings or arbitration, and the final resolution or present status of such matters.

7.0 EVALUATION PROCESS

EPE will assess the proposal, pursuant to the requirements of the RFP and the evaluation criteria developed by EPE. EPE will evaluate the bid based on all-in turnkey installed cost, overall cost per MWh and life cycle cost on a net present value basis, utilization of local inputs and other relevant factors. The assessment will consider economic and technical factors.

Proposal Review

EPE will use both quantitative and qualitative criteria to evaluate the proposal. EPE will first determine if the proposal satisfies the threshold requirements summarized below. If at any time during the evaluation process, EPE determines that the proposal does not meet its requirements, including timely submission of all documents pursuant to this RFP, such proposal will no longer be considered for this RFP and EPE will notify the Bidder accordingly during its notification process.

Favorable proposal characteristics include:

- Project - EPE seeks a project utilizing established solar and energy storage technologies;
- Low Cost - EPE seeks a proposal that will provide low-cost energy;
- High Efficiency and Performance - the proposal should provide high efficiency and performance and will provide additional value to EPE;
- Completeness and Responsiveness - The proposals must meet all criteria set forth in the RFP and include a thorough explanation of all aspects of

the proposal should be included and provide Detailed Project Engineering should be provided;

- Financial Viability and Creditworthiness - Success of the project relies on the financial capabilities of all parties involved; Bidder should have a proven financial track record and be able to provide documentation that demonstrates access to financial resources required to complete the project;
- Experience - EPE seeks a proposal from Bidder that possess extensive engineering, construction, technical, operating and maintenance experience, and a history of successful projects of a similar nature; and
- Compliance with New Mexico and federal regulations.

Threshold Evaluation

Step 1 - Bid Eligibility Determination

The proposal will be reviewed to determine if it meets the requirements outlined in this RFP.

The Company reserves the right to reject any proposal received for failure to meet any criteria set forth in this RFP. The proposal must be submitted on time and comply with the submission instructions. The corresponding application fee must be submitted as instructed

Step 2 - Initial Bid Screening Process

The Company will calculate the levelized cost in U.S. Dollars per megawatt hour ("$/MWh") for each bid based on information provided in the proposal. Bidder is advised that total life cycle cost will be a major factor in EPE's evaluation, but EPE may consider other qualitative and quantitative factors.

Step 3 - Due Diligence

The Company will conduct due diligence as part of the overall bid evaluation process, including, but not limited to, consideration of the following proposal characteristics:

- Bidder or developer experience;
- Financial strength/credit worthiness of the bidder;
- Reasonableness of the solar generation profile proposed;
- Reasonableness of the energy storage output proposed;
- Financing plan;
- Development, construction and operation experience;
- Solar technology, availability, and warranties;
- Energy storage technology, availability, and warranties;
- Risk Management, coverages, loss histories, description of program;

- Environmental permitting and compliance;
- Safety record;
- QA/QC experience;
- Project operational characteristics;
- Supply-Chain risk;
- Counterparty viability;
- Construction and equipment supply plans and arrangements;
- Operations & Maintenance Plan;
- Project execution planning;
- Bidders ability to complete multiple projects within the proposed schedule;
- Environmental impact and profile;
- Contract risk related to the development of the project;
- Bidder's performance on previous projects with the Company.

7.1 EPE's Selection of Bid and Discussions with Bidder

a. Meetings

EPE may conduct meetings to gain a greater understanding of the structure and components of each proposal. EPE may also require Bidder to submit project and/or Bidder-specific pro forma financial statements by year for the applicable facility development and construction period, including income statements, balance sheets and statements of cash flows. EPE will reevaluate any significant changes to the proposal based on new understanding of Bidder's proposal as a result of the meetings.

b. Right to Terminate Negotiations

If EPE cannot reach acceptable EPC agreement terms with Bidder, EPE reserves the right to terminate negotiations with Bidder and begin a new solicitation or cancel this RFP. Furthermore, EPE at its sole discretion, reserves the right to not select any proposal for negotiation of an EPC agreement.

Notice of Disclaimer

EPE has prepared the information provided in this RFP to assist interested persons and entities in making a decision whether to respond with a proposal. EPE reserves the right to modify, change, supplement or withdraw the RFP at its sole discretion. No part of this document or any other correspondence from EPE, its employees, officers or consultants shall be taken as legal, financial or other advice, nor as establishing a contract or any contractual obligations. All communication between Bidder and EPE shall be conducted in writing.

EPE makes no representations or warranties regarding the completeness of the information contained within the RFP and does not purport that this RFP contains all of the information needed for Bidder to determine whether to submit a proposal. Neither EPE nor its employees, officers or consultants will make, or will be deemed to have made, any current or future representation, promise or warranty, expressed or implied, as to the accuracy, reliability or completeness of the information contained within the RFP or any other information provided to Bidder.

Bidders who submit a proposal do so without legal recourse against EPE, or EPE's directors, management, employees, agents or contractors, due to EPE's rejection, in whole or in part, of their proposal or for failure to execute any agreement with EPE. EPE shall not be liable to any Bidder or to any other party, in law or equity, for any reason whatsoever related to EPE's acts or omissions arising out of, or in connection with, the RFP process.

EPE reserves the right to reject, for any reason, any and/or all proposals. EPE further reserves the right to waive any irregularity or technicality in proposals received, or to consider alternatives outside of this solicitation, at its sole discretion, to satisfy the needs of the Project. In addition, EPE reserves the right, at its sole discretion, to modify or waive any of the criteria contained herein and/or the process described herein.

No Bidder will have any claim whatsoever against EPE, its employees, officers, or consultants arising from, in connection with, or in any way relating to this RFP. Without limiting the generality of the foregoing, each Bidder agrees, by and through its submission of a proposal, that rejection of a proposal will be without liability on the part of EPE, its employees, officers or consultants, nor shall a Bidder seek recourse of any kind against any of the foregoing on account of such rejection. The filing of a proposal shall constitute an agreement of the Bidder to each and all of these conditions. Each Bidder and recipient of this RFP is responsible for all costs incurred in evaluating, preparing and responding to this RFP. Any other costs incurred by any Bidder during negotiations are also the responsibility of the Bidder.

8.0 ATTACHMENTS

8.1 Notice of Intent to Bid

1. Company Name: _____

2. Company Address: _____

   _____

3. Contact Person Information:

Name	
Title/Position	
Mail Address	
Courier Address (if different)	
Telephone Number	
Fax Number	
E-mail Address	

4. Check Project Facilities Proposed: Solar ☐ ESS ☐ Both ☐

5. Equipment Ratings: Solar: Technology _____ MW _____
   ESS: Technology _____ MW _____ MWh _____

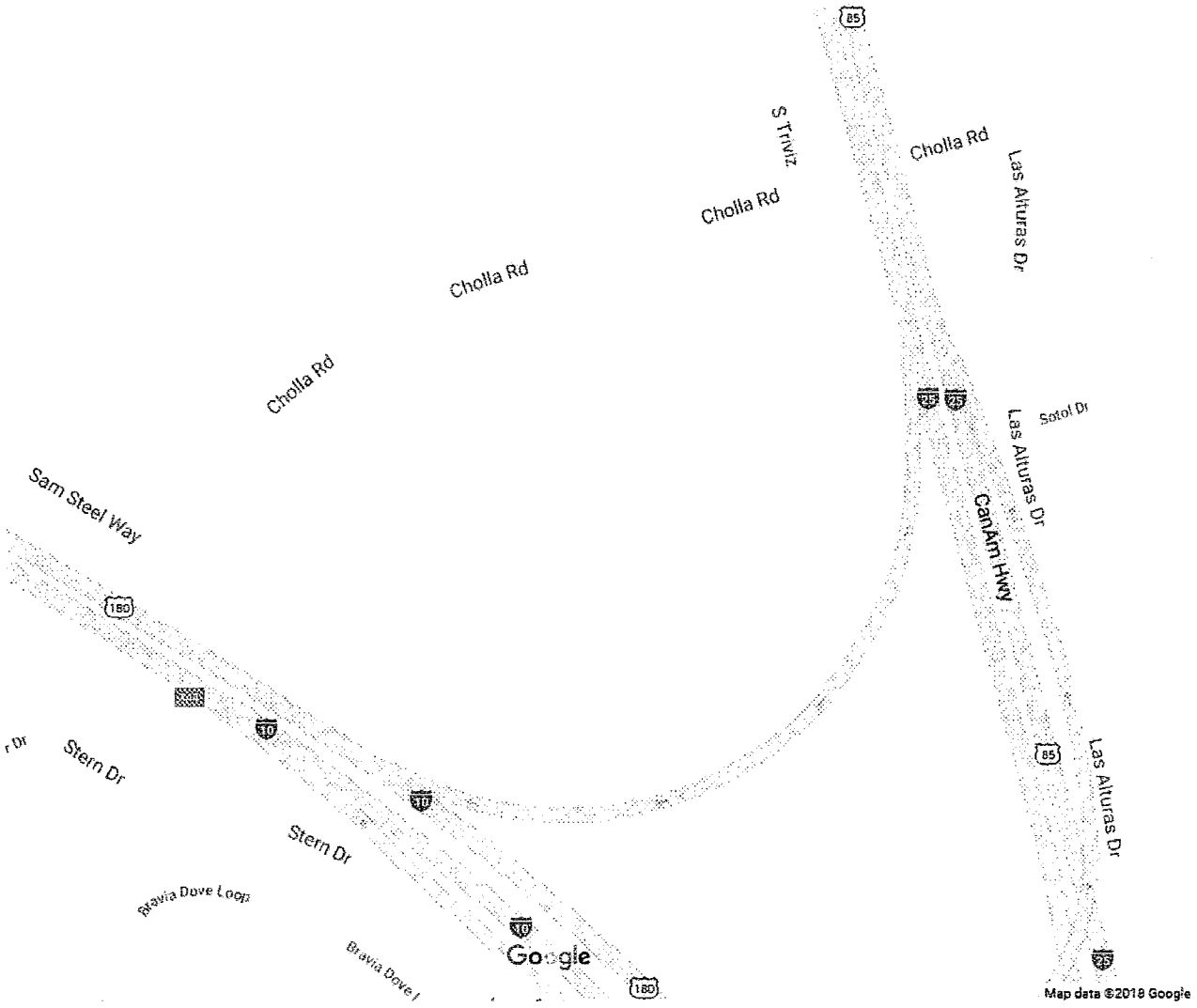
6. Authorized Signature: _____
   Name: _____
   Title: _____

7. Date: _____

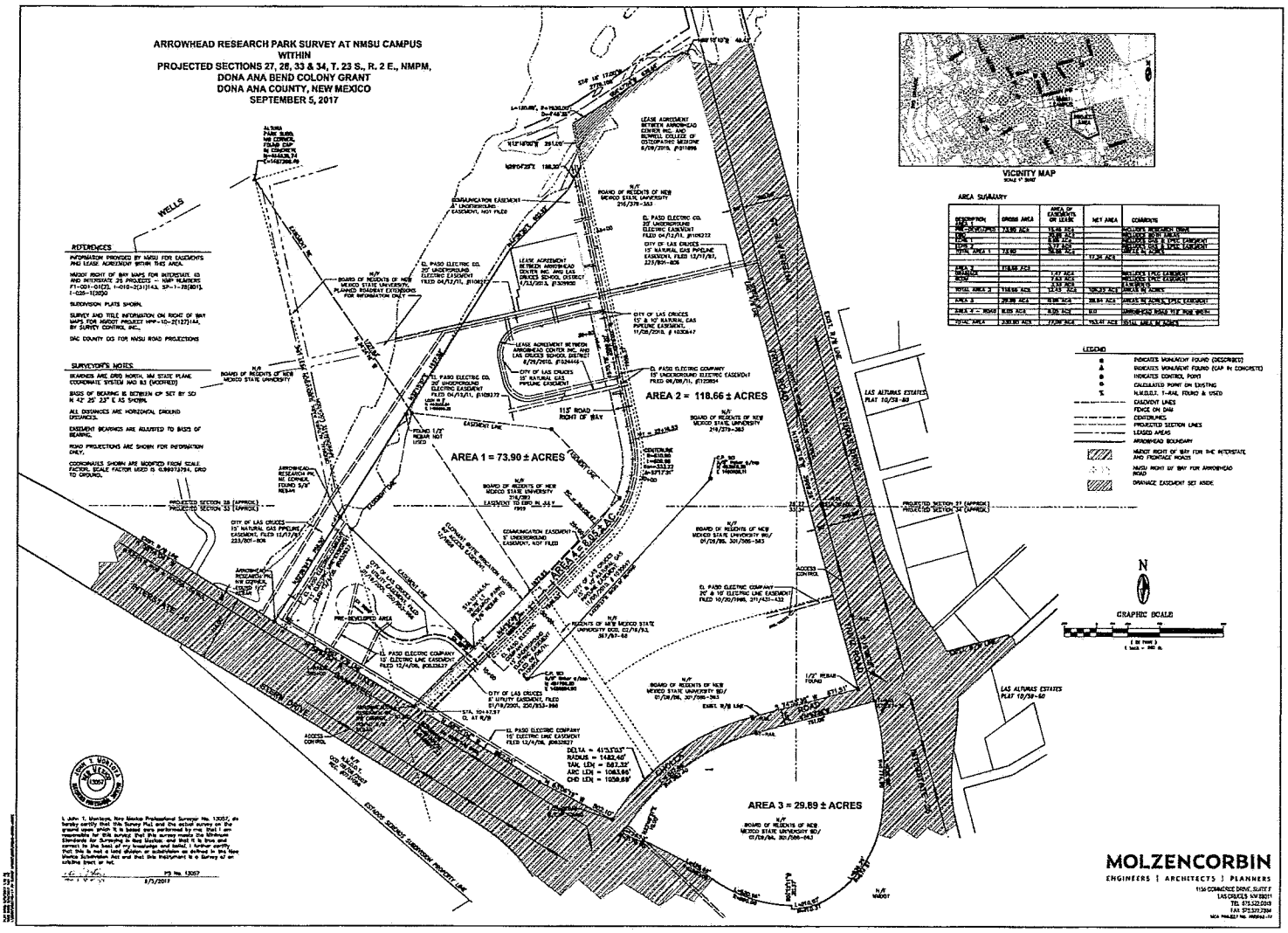
The Notice of Intent to Bid may be submitted via e-mail or facsimile to Julie Bañuelos at julie.banuelos@epelectric.com or (915) 543-4073, or mailed to Julie Bañuelos, Contract Negotiator, at P.O. Box 982, Location 121, El Paso, Texas 79960. Receipt of the Notice of Intent to Bid will be confirmed in an e-mail from EPE to the Bidder. **This form should be delivered to the above address no later than 5pm Mountain Time (MT) on December 17, 2018.**

8.2 **Project Data** (provide a detailed description of the Solar/ESS project)

8.3 NMSU Project Location



8.4 Arrowhead Research Park Survey at NMSU Campus


ARROWHEAD RESEARCH PARK SURVEY AT NMSU CAMPUS
WITHIN
PROJECTED SECTIONS 27, 28, 33 & 34, T. 23 S., R. 2 E., NMPM,
DONA ANA BEND COLONY GRANT
DONA ANA COUNTY, NEW MEXICO
SEPTEMBER 5, 2017
VICINITY MAP
AREA SUMMARY
REFERENCES
SURVEYOR'S NOTES
LEGEND
AREA 1 = 73.90 ± ACRES
AREA 2 = 118.66 ± ACRES
AREA 3 = 29.89 ± ACRES
GRAPHIC SCALE
MOLZENCORBIN
ENGINEERS | ARCHITECTS | PLANNERS

8.5 Project Requirements and Technical Specifications

8.5.1 General:

8.5.1.1 System designed per latest NEC and referenced sections adopted in the state where the site is located.

8.5.1.2 Prior to equipment procurement and construction activities, Contractor shall submit to Owner the project drawings and design documents for approval. The design shall comply with state and local codes and have a 30-year system design life.

8.5.1.3 System must be ground mounted.

8.5.1.4 Facility DC capacity is defined as the sum of the DC nameplate capacities of the solar modules under Standard Test Conditions.

8.5.1.5 Facility AC capacity is defined as the sum of the nameplate AC capacities of the inverters.

8.5.1.6 Installation of all system components will be carried out in accordance with manufacturer warranty and recommendations as well as to the requirements listed in this document. All systems and components installed must be compatible.

8.5.1.7 Certified stamped electrical, mechanical, and civil drawings must be provided by professional engineer(s) who are licensed in the state where the site is located.

8.5.1.8 All referenced sections of EPE's specifications can be found in EPE's Blue Book with the link below.

https://www.epelectric.com/nm/business/electric-services-requirement-book

8.5.2 Equipment:

8.5.2.1 Contractor shall provide all required equipment, materials, and services for the successful completion of the project.

8.5.3 Solar PV Modules:

8.5.3.1 PV modules compliant with UL1703.

8.5.3.2 Crystalline modules IEC 61215 certified.

8.5.3.3 Thin film modules IEC 61646 certified.

8.5.3.4 Latching or locking type connectors compliant with UL8703.

8.5.3.5 Manufacturer ISO9001 and ISO14001 certified.

8.5.3.6 Front glass shall include anti-reflective coating.

8.5.3.7 Acceptable vendors are the following:

8.5.3.7.1 Canadian Solar

8.5.3.7.2 First Solar

8.5.3.7.3 Hanwha

8.5.3.7.4 JA Solar

8.5.3.7.5 Jinko Solar

8.5.3.7.6 Kyocera

8.5.3.7.7 LG

8.5.3.7.8 Panasonic

8.5.3.7.9 REC Solar

8.5.3.7.10 Renesota

8.5.3.7.11 SolarWorld

8.5.3.7.12 SunPower

8.5.3.7.13 Trina

8.5.3.7.14 Yingli

8.5.3.7.15 Other equivalent

8.5.4 Tracking Systems:

8.5.4.1 The tracking system shall include the racking structure, mounting hardware, drive motors, controller system, and weather stations equipped with wind speed and irradiance sensors at minimum.

8.5.4.2 Tracking systems must be compliant with UL3703.

8.5.4.3 Racking structure, mounting hardware, grounding/bonding components and clamping and retention must be compliant with UL2703. EPC Contractor shall supply and manage the installation

of the mounting system for the solar modules sufficient to support all solar modules and meet all applicable licensing and Permit requirements. The system shall be composed of galvanized steel or aluminum. The racking manufacturer will supply a minimal 10 year warranty for the installed structure and the racking design will be certified by the racking manufacturer. The tracking system should have a 30-year design lifetime.

8.5.4.4 The tracking system must have the "stow" feature to meet wind loads design requirements. A backup energy source shall be installed for the trackers to stow during excess winds and grid power outage.

8.5.4.5 Tracking system vendor shall have installed a minimum of 50 MW of capacity in utility-scale projects. Acceptable tracking system vendors are the following:

8.5.4.5.1 Arctech Solar

8.5.4.5.2 Array Technologies

8.5.4.5.3 NexTracker

8.5.4.5.4 Soltec

8.5.4.5.5 SunPower

8.5.5 Combiner Boxes:

8.5.5.1 Combiner boxes shall be rated for maximum system voltage and maximum system continuous and short-circuit currents.

8.5.5.2 Combiner boxes must comply with the latest NEC adopted in the state the site is located.

8.5.5.3 Enclosures shall be NEMA 4 rated and have integral key lock or provisions for padlocking.

8.5.5.4 DC inputs shall be fused and fuses shall have a blown fuse indication.

8.5.5.5 Combiner box output shall have a means to be externally disconnected.

8.5.5.6 If the combiner box has a lightning protection device, the device should include a visual trip indicator.

8.5.6 Inverters:

8.5.6.1 Shall be central inverters specifically designed for PV installations, and meet the following minimum standards.

8.5.6.2 UL1741 - Standard for Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources.

8.5.6.3 Inverters and their functionality as distributed resources in planned electrical islands shall comply with applicable provisions described in IEEE 1547-2003 - IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems.

8.5.6.4 Inverters shall be multi-mode DC to AC capable of switching between grid-interactive mode and microgrid mode. Inverters shall have voltage and frequency ride-through functionalities, as well as be capable of actively regulating voltage levels by adjusting active and reactive power.

8.5.6.5 Have a maximum harmonic distortion of less than 3% of the total harmonic distortion at rated power output.

8.5.6.6 Have an efficiency greater than 97.5% without MV step-up transformer.

8.5.6.7 Be capable of reaching rated output at 50 degrees Celsius or higher.

8.5.6.8 Have a 30-year design life and carry a minimum 5-year standard warranty with options of at least 20-year extended warranty.

8.5.6.9 Inverters shall be equipped with data collection and communications to SCADA.

8.5.6.10 Inverter blocks shall be configured in identical MW increments, if possible.

8.5.6.11 Skid mounted solutions containing inverters, step-up transformers, and other power conditioning equipment and systems are preferred.

8.5.6.12 Inverter vendor shall be certified to ISO 9001 and ISO 14001 standards and have supplied a minimum of 50 MW capacity in utility-scale projects.

8.5.6.13 Acceptable inverter vendors are the following:

8.5.6.13.1 ABB

8.5.6.13.2 Eaton

8.5.6.13.3 General Electric

8.5.6.13.4 Schneider Electric

8.5.6.13.5 SMA

8.5.7 Transformers:

8.5.7.1 Step-up transformers must comply with **EPE specification G&I 088-010 to 088-400** except for any variances noted in this section

8.5.7.2 Interconnecting transformers shall step-up inverter output voltage to the Site nominal voltage.

8.5.7.3 The end of the transformer(s) series connection shall have surge arrestors on the high voltage side with a voltage rating suitable for the application.

8.5.7.4 Transformers shall meet C57.12.34 - IEEE Standard Requirements for Pad-Mounted, Compartmental-Type, Self-Cooled, Three-Phase Distribution Transformers.

8.5.7.5 Transformer warranty to be provided by Contractor once the transformer is selected, which shall be from El Paso Electric Co.'s list of approved transformers:

8.5.7.5.1.1 ABB

8.5.7.5.1.2 EATON - Cooper

8.5.7.5.1.3 ERMCO

8.5.7.5.1.4 Howard

8.5.7.6 Step-up transformer(s) configuration shall be: Primary wye-grounded, secondary delta.

8.5.7.7 Transformer(s) shall comply with the 2016 DOE standard efficiency or latest.

8.5.7.8 Transformer(s) color shall be Munsell 7GY3.29/1.5 pad-mount green.

8.5.7.9 Transformer(s) shall accommodate a padlock on top of the required pentahead security bolts.

8.5.7.10 Transformer(s) shall be compatible with EPE transformer pad (Pad B).

8.5.7.11 The high side bushings shall comply with IEEE C57.1234 Figure 16 (loop configuration).

8.5.7.12 The low-voltage terminal location and arrangement shall conform to Figure 8(a) of IEEE C57.12.34.

8.5.7.13 The transformer shall be supplied with a sticker stating the nature of the coolant.

8.5.7.14 Required warning stickers are shown in Figure 2 on page 14 of **EPE Specification G&I 088-010 to 088-400.**

8.5.7.15 The primary voltage, secondary voltage, and kVA rating shall be located on the outside of the transformer. These stenciled numbers shall be 1 ¾" in height. See page 14 of **EPE Specification G&I 088-010 to 088-400.**

8.5.7.16 The transformer shall include two nameplates (one inside, and one outside) with the following information: KVA, primary voltage, secondary voltage, serial number, date of manufacture, Impedance, X/R ratio, gallons of oil, weight, and shall state that the transformer oil contains less than 1 ppm PCB.

8.5.7.17 The transformer shall include the approved Non-PCB sticker. See section 7.8 on page 5 and figure 1A on page 14 of **EPE Specification G&I 088-010 to 088-400.**

8.5.7.18 A ground lug should be included in the ground provision on the high-voltage side of the tank.

8.5.7.19 The low voltage terminals shall be suitable for the application of bushing mounted current transformers. The transformer secondary compartment shall contain studs, to be used for mounting current transformers.

8.5.7.20 EPE minimum clearances shall be met regarding the LV and HV bushing distance with respect to the HV-LV barrier and the cabinet

wall. Refer to Figure 3 in **EPE Specification G&I 088-010 to 088-400.**

8.5.7.21 EPE has a preference for non-load break 200 A bushings.

8.5.7.22 Tap changer shall be rated for operation under load.

8.5.7.23 Secondary terminations: 12-hole spades.

8.5.7.24 Only the last step-up (MV) transformer (going downstream) will be equipped with surge arrestors.

8.5.7.25 Envirotemp FR3 and Mineral Oil are both accepted.

8.5.7.26 S Taps - two 2.5% taps below nominal and two above nominal.

8.5.8 Metering:

8.5.8.1 EPE is responsible for providing metering equipment. The metering equipment is to be contained in a separate enclosure upstream of the switchgear enclosure. Metering equipment includes CTs, PTs, PQ and revenue meter.

8.5.9 Communications and Data Acquisition System:

8.5.9.1 Contractor shall design and specify all communications hardware and software required for system protection and remote monitoring and control.

8.5.9.2 The design shall include utility grade metering and monitoring provisions equipped with weather station(s) including remote "real time" monitoring of system performance and data collection over the internet via the Data Acquisition System ("DAS").

8.5.9.3 The monitoring system shall provide real time energy generation data, historical data and meteorological data. The contractor shall provide meteorological station(s) that will provide real time weather data.

8.5.9.4 The data shall be collected at hardwired locations and transmitted wirelessly via a cellular modem to be provided and installed by the Contractor.

8.5.9.5 The monitoring system(s) shall include a web-based interface available for Owner to access remotely. The interface shall display site status and equipment status e.g. inverters, trackers. It shall

also display alarms and send automatic e-mail notifications in cases of emergency i.e. system outages.

8.5.9.6 The Contractor shall test the installed communications systems to demonstrate its ability to meet the requirements. Testing shall be conducted when the final system connections have been made.

8.5.10 Switchgear (up to 5 MW):

8.5.10.1 600-amp continuous and loadbreak.

8.5.10.2 12.5kA sym. maximum interrupting rating.

8.5.10.3 1000:1 internally mounted current transformers used for over current protection.

8.5.10.4 600-amp Deadbreak Apparatus Bushings per IEEE 386 figure 11.

8.5.10.5 600-amp Deadbreak interface to IEEE 386 200-amp (bushing extender combo).

8.5.10.6 Front Access to switch operators and bushings on front and back

8.5.10.7 Welded stainless steel mechanism cover painted light gray (ANSI 70).

8.5.10.8 Galvanized steel frame.

8.5.10.9 Parking stands for all bushings.

8.5.10.10 12-gauge galvanized steel padmount enclosure with 24" cable compartment. Meets ANSI C37.72 & C57.12.28 standards.

8.5.10.11 Enclosure painted Padmount Guardian Green, Munsell #7.0GY3.29/1.5.

8.5.10.12 36" minimum bushing height.

8.5.10.13 ½"-13 NC grounding provisions.

8.5.10.14 Padlockable operating mechanism.

8.5.10.15 Green/ OPEN - Red/ CLOSED labeling.

8.5.10.16 12-gauge galvanized steel low voltage enclosure.

8.5.10.17 The switch must fit EPE approved concrete pad.

8.5.10.18 Switch equipped with quantity one auxiliary Form C contacts wired to the control cabinet for use by the control.

8.5.10.19 NEMA 4X control cabinet, including: SEL751 feeder protection relay (751402BCBCB0X810621) to provide three phase overcurrent protection(50/51), under voltage protection(27), over voltage protection (59), frequency protection (81U, 81O), directional power, IEC cable/line thermal, vector shift, sensitive earth fault (SEF), and load encroachment elements; Provisions for mounting CISCO 2520 connected grid switch of dimensions 1.75 "H X 17.50 "W X 14.00 "D; 24 V DC Provisions for powering the CISCO 2520 connected grid switch; (2), Two-strain reliefs and necessary accessories for installing fiber based on diameter of fiber to be used.

8.5.10.20 Stationary motor control using SEL751 relay, the control shall be equipped with 120 VAC Power supply, PWR-IE170W-PC-AC and 55 AH batteries used for battery backup; the motor control shall have remote operation capability.

8.5.10.21 Applicable Industry Standards: Load Break Switch Ratings, IEEE C37.74; Fault Interrupter Ratings, IEEE C37.60; Bushings: IEEE 386; Padmount Enclosure: IEEE C57.12.28.

8.5.10.22 Solar Switch Termination must conform with **EPE Distribution Standard DSU-554.**

8.5.10.23 Switchgear Vault to be constructed in conformance with **EPE Distribution Standards UD300 and DSU 1235.**

8.5.10.24 Approved switchgear vendors:

8.5.10.24.1 G&W Electric

8.5.10.24.2 S&C Electric

8.5.10.24.3 Elastimold

8.5.11 Communication Field Switches:

8.5.11.1 Switch: CISCO IE-2000-16PTC-G-E

8.5.11.2 Software: (Lan Base License)

8.5.11.3 Power Supplies: 2 x PWR-IE170W-PC-DC=

8.5.11.4 Optics: SFP-GE-L=1000BASE-LX/LH

8.5.12 SCADA Points:

8.5.12.1 Switchgear status (Open/Closed) and local/remote control

8.5.12.2 Any MOD Status that would be used for isolation (Open/Closed)

8.5.12.3 Analogs - Revenue and PQ meter, Power Stations meters, and Energy Storage meter

8.5.12.3.1 MW

8.5.12.3.2 MVA

8.5.12.3.3 MVAR

8.5.12.3.4 Phase Currents

8.5.12.3.5 Phase Voltages

8.5.12.4 Accumulators - Revenue and PQ meter, Power Stations meters, and Energy Storage meter

8.5.12.4.1 MWh-In

8.5.12.4.2 MWh-Out

8.5.12.4.3 MVARh-In

8.5.12.4.4 MVARh-Out

8.5.12.5 Weather Station Signals

8.5.12.5.1 Ambient Temp

8.5.12.5.2 Solar Irradiance

8.5.12.5.3 Back Panel Temp

8.5.12.5.4 Wind Speed

8.5.12.5.5 Wind Direction

8.5.12.6 Tracker Data Points

8.5.12.6.1 Tilt Angle

8.5.12.6.2 Tracker Status

8.5.12.7 Transformer

8.5.12.7.1 Alarms/Status Indicators

8.5.12.7.2 Oil temperature

8.5.12.8 Energy Storage

8.5.12.8.1 Local/Remote control

8.5.12.8.2 Mode of Operation

8.5.12.8.3 Charge/Discharge and State of Charge

8.5.12.8.4 kW/kVAR setpoints

8.5.12.8.5 Alarms/Status

8.5.12.9 Two isolated networks will provide site data access

8.5.12.9.1 Monitoring entity to have direct access to field data; transferred to EPE via DNP3

8.5.12.9.2 Field data to be provided to monitoring entity via Modbus after being collected through an EPE secure data connection to site

8.5.12.10 UPS powering SCADA server and weather station(s) required

8.5.13 Energy Storage System (ESS):

8.5.13.1 The design and installation of the ESS shall be in accordance to UL 9540 Standard for Energy Storage Systems and Equipment.

8.5.13.2 Shall be rated at one MW of power and either two or four MWh of energy, AC-coupled to a three MW solar generating facility.

8.5.13.3 Maximum 100 millisecond response time from 100% charge to 100% discharge output and vice versa.

8.5.13.4 Total Harmonic Distortion (THD) shall be less than three percent at rated output. Recommended practices and requirements as per IEEE 519 shall be followed.

8.5.13.5 Shall be able to retain at least 80% of Beginning of Life (BOL) capacity rating at 10 years.

8.5.13.6 Noise emissions shall be less than 60 decibels (dB) measured at the fence line of the project site.

8.5.13.7 Shall be capable of providing services including but not limited to peak shaving, solar shifting, and curve smoothing and expected to fully cycle once a day.

8.5.13.8 Shall be compatible with EPE's SCADA system for real time monitoring and system control. Communications shall be Modbus RTU, Modbus TCP, or DNP3.

8.5.13.9 The Energy Management System (EMS) shall be designed to provide automatic, unattended operation but also local manual operation, remote operation, and dispatch of the ESS from SCADA system.

8.5.13.10 The EMS shall provide the ability to manage system operation to include but not limited to:

8.5.13.10.1 Interface with inverter controller

8.5.13.10.2 Controls for charging, discharging, and state of charge

8.5.13.10.3 Trigger alarms for conditions and malfunctions out of the specifications

8.5.13.10.4 Data logging

8.5.14 Conduit:

8.5.14.1 Above ground conduit, in places where conduit could be subject to physical damage, the conduit shall be PVC schedule 80 Underground conduits are to be schedule 40 PVC with PVC sweeps direct buried rated or concrete encased rated. Underground conduits may be direct buried in areas that do not require concrete encased duct banks for structural considerations.

8.5.14.2 All metal conduit must be hot dipped galvanized.

8.5.14.3 In no case shall conduit design be less than that called for by NEC 2014 or latest adopted in the state where the site is located.

8.5.14.4 EMT shall be manufactured to UL797 and ANSI C80.3.

8.5.14.5 Module-to-module interconnection wiring within a string and string home-run wiring to combiner boxes shall be neatly bundled and routed below modules such that it is protected from damage and decay. Exposed DC wire shall be compliant with UL4703.

8.5.14.6 For Power Cable Conduit up to 25kV refer to **EPE Distribution Standard DSU 1645 Duct Sizes For Use On Underground Cable Runs.**

8.5.15 Wire & Conductors:

8.5.15.1 Underground Power Cable for operation at 60Hz three phase in solidly grounded wye systems rated up to 25kV phase to phase must conform with EPE specification **GI013-306 to 013-313.**

8.5.15.2 Both DC Side and AC side underground conductors must be in conduit.

8.5.15.3 All conductors must be aluminum or copper rated XHHW-2 or greater as required.

8.5.15.4 Single conductor wire and cable shall be rated for a maximum of 1500 V, 90°C for XLP and 90°C or 105°C for EPR insulation. Single conductor greater than #1/0 AWG shall have EPR insulation with a PVC, CPE or CSPE cable jacket. Non-jacketed FREP insulation with appropriate UL flame test may also be used for large single conductor cables.

8.5.15.5 Single pair instrument cable shall be rated for a maximum of 1500 V, XLP or PVC insulation, twisted shielded pairs with drain wires and a PVC, CPE or CSPE cable jacket.

8.5.15.6 Multi-pair instrument cable shall be rated for a maximum of 1500V, XLP or PVC insulation, twisted shielded pairs with drain wires, overall shield, and a PVC, CPE or CSPE cable jacket.

8.5.15.7 Wiring runs between major items of equipment and system modes (i.e., a string, combiner boxes, disconnects, inverters, utility interconnection, and energy monitoring system (EMS) devices shall be continuous, unless unavoidable. Pull boxes shall be used for long runs as per conductor technical specification.

8.5.15.8 When in conduit, conductors shall be USE-2 or THWN-2 (Thermoplastic Heat and Water Resistant Nylon Coated wire is permitted) or of a higher standard.

8.5.15.9 All conductors shall be sized per the most current NEC code.

8.5.15.10 Conductors used for data communication will be a stranded copper #18-22 twisted pair shielded wire (Belden 1120A or approved equivalent).

8.5.15.11 Plastic zip ties used for exposed wire management must be UV stabilized.

8.5.16 Fuses:

8.5.16.1 Fuses for disconnects to be current limiting UL class J, RK1 or RK5 and of the appropriate voltage, delay or non-delay characteristic, and current rating to provide complete short circuit and overload protection per NEC sections regarding component selection.

8.5.16.2 Fuses located in the combiner boxes protecting PV string branch circuits shall be UL listed, DC voltage rated based on branch circuit voltage, be in "finger-safe" type fuse holders providing load break disconnect capabilities when changing fuses. Midget fuses and fuse holders used in these circuits must be fully DC rated and adequate DC short circuit withstands and let-through capability must be provided for all power situations including "back-fed" conditions.

8.5.17 Enclosures:

8.5.17.1 Indoor enclosures shall be NEMA 3R or better.

8.5.17.2 Outdoor enclosures shall be rated NEMA 3R or better. A NEMA 4 rating is required for enclosures housing control equipment, fused DC combiners, data acquisition components, monitoring equipment, switchgear, and any sensitive equipment associated with the inverters.

8.5.17.3 Enclosures containing monitoring equipment such as dataloggers, meters, and network communications shall be located indoors if at all possible.

8.5.17.4 Switchgear, motor controls, inverters, battery and charger systems, DC and AC distribution panels shall be pad mounted and fenced.

8.5.18 Nameplates:

8.5.18.1 Engraved phenolic nameplates are required for all equipment, panels and enclosures. Proposed nameplates must be submitted for approval prior to installation and shall match drawing naming convention.

8.5.18.2 Signs shall be weather-proof, corrosion-proof, UV-stabilized and fade-resistant. Signs shall be attached using non-corrosive materials throughout. Any degrading signage, or failing attachment mechanisms, will be subject to warranty replacement.

8.5.18.3 Signs must be installed at appropriate locations warning that the Project is operational and that there are potentially multiple onsite power sources.

8.5.18.4 DC power circuits shall be identified on switches and individual module strings shall be identified in DC combiner boxes. Positive DC circuit wire should be color coded red and negative DC circuit wire should be color coded black.

8.5.18.5 Signage shall include that called out in NEC 2014 article 690 unless overridden by applicable local law or authorities having jurisdiction.

8.5.18.6 EPC Contractors or Subcontractor's brand or contact information is allowed only on temporary construction signage, or on equipment or components of the Project manufactured by Contractor, Subcontractor or its affiliates.

8.5.19 Site Access:

8.5.19.1 The site shall have access roads through the arrays to facilitate construction activities and accommodate emergency vehicles such as fire trucks. The roads shall be built to accommodate crane access and no equipment shall be installed along the roads' surface causing obstruction of vehicular access. Roads shall remain clear of any temporary or permanent obstruction during construction activities and after commissioning to facilitate O&M services.

8.5.20 Fencing:

8.5.20.1 Contractor shall provide a proposal for a permanent fencing structure around the perimeter of the project. The fencing shall

be decorative and no less than 7-foot high. Typical chain link is not acceptable. A "framed" chain link might prove acceptable.

8.5.20.2 The perimeter fence shall include two locked gates: one with a width of 24 feet for vehicles and one pedestrian entrance with a width of 4 feet. Fencing shall meet state and local codes.

8.5.20.3 Signage shall be installed along the fence every 65 feet and on all gates. Signage shall be installed five feet above ground level.

8.5.21 System Commissioning:

8.5.21.1 Commissioning tests, documentation, and inspection should comply with IEC 62446 at a minimum.

8.5.21.2 The solar system performance report shall include a PVSyst report, an 8760 output in Excel format, and a capacity test model based on ASTM E2848-13 (or later) Standard Test Method for Reporting Photovoltaic Non-Concentrator System Performance.

8.5.21.3 Once mechanical and electrical completion is achieved, and the system is energized and interconnected to Owner's grid, Contractor may start with test energy production (with Owner's consent). Once the system achieves rated capacity and all communications systems are complete, the 5-day capacity test may begin. The system must pass the capacity test to be commissioned and begin commercial operation.

8.5.21.4 The ESS performance report shall include testing data for 100% of the production cells to ensure compliance with design requirements. At a minimum, the following capacity tests shall be performed.

8.5.21.4.1 Amp-hour

8.5.21.4.2 Watt-hour

8.6 NMSU's Storm Water Management Program

NEW MEXICO STATE UNIVERSITY

STORM WATER MANAGEMENT PROGRAM
FOR
NPDES GENERAL PERMIT
NO. NMR040000

JULY 2009

Prepared by:

Martich Professional Services, PLLC
4100 Rio Bravo Street, Suite 320
El Paso, TX 79902-1049
(915) 433-9254

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed by:

JL M. Taylor

7-31-09

Jennifer Taylor, Senior Vice-President
Business, Finance and Human Resources
New Mexico State University

Date

By: Angela Throneberry, Associate Vice President, Business, Finance & Human Resources

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EXECUTIVE SUMMARY

In 2007 the Environmental Protection Agency (EPA) issued a General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). The permit's requirements are applicable to all state, city, county and other public bodies that own or operate a system of conveyances for storm water within an urbanized area. These conveyances may consist of roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, storm drains and other manmade channels or drainage structures.

New Mexico State University (NMSU) is an MS4 Operator within the Las Cruces Urbanized Area. Although NMSU has extensive properties throughout Las Cruces and New Mexico, the permit requirements are only applicable to the portion of NMSU within the Las Cruces Urbanized Area. This portion is called the main campus and is approximately bordered by University Avenue, Interstate Highway 25 and Interstate Highway 10.

NMSU must meet several criteria to be eligible for authorization of its storm water discharges under the general permit. These criteria include:

- Determination that its discharges do not cause or have a reasonable potential to cause or contribute to water quality standards not being met in the waters receiving the discharges;
- Determination that its discharges do not exceed any Total Maximum Daily Loads of pollutants established for waters receiving the discharges;
- Determination that its discharges and discharge-related activities do not jeopardize a species listed as endangered or threatened under the Federal Endangered Species Act; and
- Determination that its discharges and discharge-related activities do not affect a property that is listed or is eligible for listing on the National Register of Historic Places as maintained by the U.S. Secretary of the Interior.

NMSU has determined that it meets the above eligibility requirements. Future drainage projects or other construction activity in support of permit requirements will need to be evaluated for their potential effects on endangered or threatened species and historic properties at the time the projects are planned and designed.

The Storm Water Management Program (SWMP) was prepared to fulfill the permit's requirement that NMSU develop, implement, and enforce a SWMP to reduce the discharge of pollutants to the maximum extent practicable (MEP). The EPA has determined that effectively implementing six Minimum Control Measures (MCMs) will satisfy the permit's MEP requirement. The six MCMs are:

- Public Education and Outreach on Storm Water Impacts
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Runoff Control
- Post-Construction Storm Water Management in New Development and Redevelopment
- Pollution Prevention/Good Housekeeping for Municipal Operations

The permit contains standard requirements that must be addressed in the SWMP for each of these six MCMs. In addition, NMSU is required to propose Best Management Practices (BMPs) for each of the six MCMs.

BMPs are activities, prohibitions, maintenance procedures and other practices to prevent or reduce the discharge of pollutants to receiving waters. NMSU's proposed BMPs are summarized in Tables 1 – 6 of Chapter 4.0. Upon review and acceptance of these proposed BMPs by the EPA, the BMPs will become incorporated into the permit by reference. NMSU will be responsible for implementing the BMPs on the schedule presented in the tables and in no case later than June 30, 2012.

In addition to implementing the BMPs, NMSU is responsible for meeting general permit conditions that include:

- Submitting to the EPA a Notice of Intent to authorize its MS4 discharges under the permit;
- Submitting an annual report to the EPA by October 1 of each year;
- Publishing public notices of the Notice of Intent, SWMP, and each annual report;
- Developing a Monitoring and Assessment Plan to measure the effectiveness of BMPs; and
- Maintaining records of all permit-related documents and activities for at least three years from the date of the document or activity or for the term of the permit, whichever is longer.

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ACRONYMS

A/E	Architectural and Engineering
ASNMSU	Associated Students of New Mexico State University
BMP	Best Management Practice
CAFO	Concentrated Animal Feeding Operation
CFR	Code of Federal Regulations
CGP	Construction General Permit
CID	New Mexico Construction Industries Division
CIP	Capital Improvements Program
CWA	Clean Water Act
EBID	Elephant Butte Irrigation District
EH&S	Environmental Health & Safety
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
HHW	Household Hazardous Waste
IDDE	Illicit Discharge Detection and Elimination
IH	Interstate Highway
IPM	Integrated Pest Management
LID	Low Impact Development
MAP	Monitoring/Assessment Plan
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MRF	Material Recycling Facility
MS4	Municipal Separate Storm Sewer System
MSGP	Multi-Sector General Permit
NG	Natural Gas
NHPA	National Historic Preservation Act
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMSU	New Mexico State University
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
OSHA	Occupational Health and Safety Administration
RCRA	Resource Conservation and Recovery Act
SGCR	Student Government for Campus Residents
SHPO	State Historic Preservation Office
SIC	Standard Industrial Classification
SWMP	Storm Water Management Program
SWPPP	Storm Water Pollution Prevention Plan
TMDL	Total Maximum Daily Load
USFWS	United States Fish and Wildlife Service
UA	Urbanized Area
WQS	Water Quality Standard
WRRI	New Mexico Water Resources Research Institute

STORM WATER MANAGEMENT PROGRAM

1.0 INTRODUCTION

1.1 NEW MEXICO STATE UNIVERSITY

1.1.1 History and Governance

New Mexico State University was founded in 1888 as Las Cruces College. The New Mexico Territorial Legislature of 1889 established the land-grant Agricultural College and Experiment Station at the college, which officially opened on January 21, 1890. During its first full academic year, the college became known as the New Mexico College of Agriculture and Mechanic Arts. It was the first degree granting institution in the Territory.

In 1960 New Mexico College of Agriculture and Mechanic Arts became New Mexico State University (NMSU). Since that time, NMSU has become a comprehensive doctoral level university offering a wide variety of programs while sustaining its role as New Mexico's land-grant institution (NMSU, 2007).

NMSU is governed by the Board of Regents. The Board is appointed by the Governor of New Mexico and is comprised of five members, one of whom is a student. The university is operated by the President and a set of Vice Presidents.

1.1.2 Location and Boundaries

The main campus of NMSU is within the Las Cruces Urbanized Area. The Environmental Protection Agency (EPA) shows the main campus as University Park within the hatched urbanized area of Figure 1.

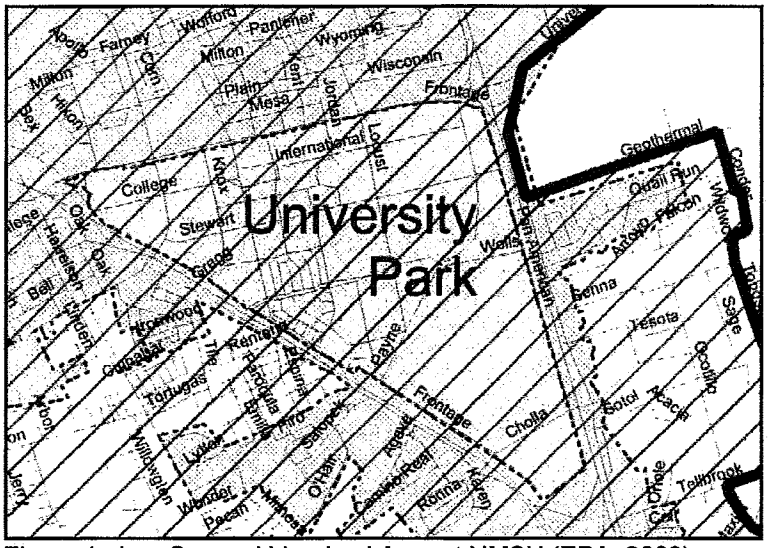

Figure 1. Las Cruces Urbanized Area at NMSU (EPA, 2002).

NMSU owns significantly more land in and adjacent to the Las Cruces Urbanized Area than is shown in Figure 1. Exhibit 1 of the SWMP shows the location and boundaries of

the main campus and other lands owned by NMSU in the immediate vicinity of Las Cruces, both within and outside of the Las Cruces Urbanized Area.

Land owned by NMSU north of University Avenue is leased for commercial development and is within the incorporated limits of the City of Las Cruces. The development is served by the City's drainage system and is subject to the City's Municipal Code of Ordinances.

Land owned by NMSU southwest of Interstate Highway 10 is used for agriculture in support of the land-grant institution activities of NMSU. The only discharges from these areas are agricultural storm water discharges and return flow from irrigation agriculture, both of which are excluded from the definition of point source in Section 502(14) of the Clean Water Act (CWA).

1.1.3 Land Use and Topography

NMSU lies within the Mesilla Valley that is created by the Rio Grande. The valley is part of the Basin and Range Province of the western United States and Mexico. Although the valley is within the Chihuahuan desert, the Rio Grande provides a source of water for irrigation that has resulted in the Mesilla Valley being an important agricultural center. The Elephant Butte Irrigation District (EBID) operates a network of canals, laterals and drains (historically known as acequias) to supply water for agriculture. NMSU is located over four miles from the Rio Grande, near the eastern edge of EBID's system.

Elevations within the main campus range from approximately 3880 feet in the western corner of the triangle to 4100-4200 feet along the I-25 corridor on the east side. The western corner of the main campus is in the bottomland clays of the historic Rio Grande floodplain. The campus rises onto valley sides and terraces toward the east, with soils transitioning from clay to loams to deep sands and gravelly sands on the east side and in the undeveloped southeast triangle of the main campus (USDA, 2004 and 2008). The soils also become progressively more erodible from west to east across the campus.

The historic bottomland in the western corner of the main campus is used for agricultural studies and research. The remainder of the main campus is within an area that had an historic climax community of dropseed-dominated grassland and a rangeland ecosystem (USDA, 2004 and 2008). A small remnant of the ecosystem exists between the Cholla Arroyo and the unnamed arroyo to the southeast, where the vegetation consists of sparse grasses with scattered yucca.

The entire main campus has been disturbed by human activity. The land north of Wells Street is fully developed, as is most of the land northwest of Tortugas Arroyo (Exhibit 2). The majority of undeveloped land is southeast of Tortugas Arroyo. In this area, most of the historic grassland has been replaced with mesquite dunes intermixed with sparse grasses and a few shrubs. The land south of the unnamed arroyo appears to have been significantly disturbed, probably by construction of the IH-10 and IH-25 interchange, and is now covered by creosote bushes.

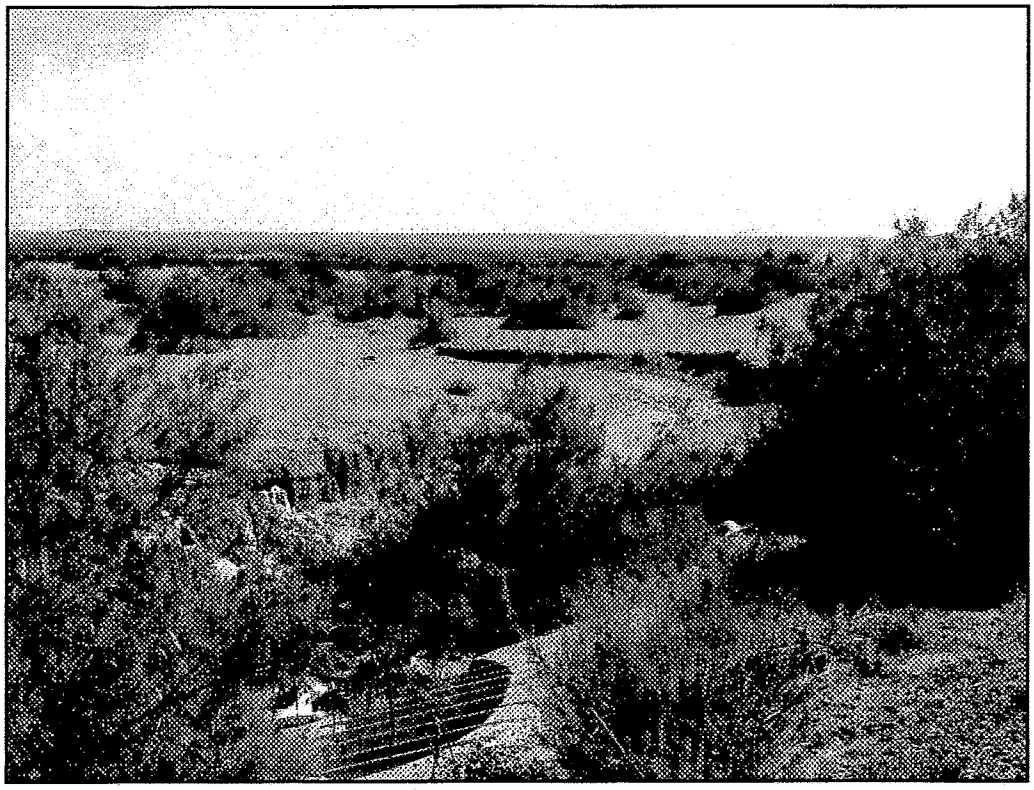

Figure 2. Undeveloped Area of the NMSU Main Campus.

1.2 NPDES GENERAL PERMIT FOR DISCHARGES FROM SMALL MS4s

Under the Clean Water Act (CWA), operators of Municipal Separate Storm Sewer Systems (MS4) within an urbanized area are required to obtain permit authorization to discharge storm water. State, city, county and other public bodies in urbanized areas that had fewer than 100,000 residents in the 1990 Decennial Census are called "Small MS4s." NMSU is a Small MS4 operator.

On May 31, 2007, the EPA issued National Pollutant Discharge Elimination System (NPDES) General Permit Number NMR040000 (Federal Register, 2007) authorizing discharges from Small MS4s to waters of the United States. Small MS4s are eligible for authorization of their storm water discharges under the General Permit, as long as they comply with the conditions of the permit. The permit requires Small MS4 operators to submit to the EPA a Notice of Intent (NOI) to authorize their storm water discharges under the permit. The MS4 Operator must also develop, implement and enforce a Storm Water Management Program (SWMP) designed to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP).

This SWMP was prepared in accordance with Part 5 of the MS4 General Permit by the NMSU Office of Facilities and Services and its consultant, Martich Professional Services, PLLC. NMSU has not combined or shared efforts with any other MS4 operator and is solely responsible for the implementation of the SWMP.

NMSU prepared the SWMP and is seeking permit authorization only for the portion of its MS4 that is within the Las Cruces Urbanized Area, which is the main campus, bounded

approximately by University Avenue, IH-25 and IH-10 (Exhibit 1). Land east of IH-25 is excluded from the SWMP, since it is outside of the urbanized area. It may become part of the SWMP when the permit is renewed, depending on results of the 2010 Decennial Census. Agricultural land southwest of IH-10 is excluded from the SWMP, since there are no municipal point source discharges from the property. NMSU may choose to implement some BMPs through-out its property, but it is only applying for permit authorization of discharges from the MS4 within the urbanized area, as required by the permit.

2.0 PERMIT ELIGIBILITY REQUIREMENTS

2.1 PUBLIC NOTICE AND REVIEW

Part 1.2.3.1 of the MS4 General Permit requires NMSU to provide public notice sixty (60) days prior to the submittal of its NOI. NMSU is also required to make the NOI with attachments, including the SWMP, available for public review.

A Public Notice of the availability of the NOI and SWMP for review is being published in the Las Cruces Sun-News on August 2, 2009. Documentation of the public notice, public comments received, and NMSU's response to the comments will be inserted into Appendix A. This documentation will be provided to the EPA with the annual report that is due October 1, 2009.

2.2 WATER QUALITY STANDARDS

Part 1.4.5 of the MS4 General Permit prohibits authorization of discharges that will cause or have the reasonable potential to cause or contribute to the excursion above any applicable Water Quality Standard (WQS), unless appropriate controls and procedures are implemented to bring the discharge into compliance with the standards. SWMP Exhibit 2 shows a drainage system map for the NMSU MS4. The MS4 discharges storm water into the following:

- City of Las Cruces MS4, which discharges to the EBID Park Drain;
- Tortugas Arroyo, which flows to the EBID Bouggy Drain and then the EBID Park Drain;
- Mission Bell Arroyo, which flows to the EBID Tortugas No. 2 retention basin;
- College Arroyo and Cholla Arroyo, which flow into the Tortugas Arroyo; and
- Unnamed Arroyo, which flows to a retention basin.

All of the arroyos are normally dry, ephemeral, water ways that only flow in direct response to significant precipitation in the immediate area. New Mexico Water Quality Standards for ephemeral waters are use-specific, based on an ephemeral water surface that can fulfill the designated uses of livestock watering, wildlife habitat, limited aquatic life, and secondary contact (NMAC, 2007). The arroyos that flow through NMSU have an ephemeral flow that is typically gone within a day and does not create usable surface water. The only non-use specific WQS is for bacteria. The standard is based on a geometric mean that requires five samples within a 30-day period. Surface water does not remain in these arroyos long enough to collect five samples.

NMSU has determined that its discharges do not cause, nor do they have a reasonable potential to cause, an excursion of a WQS.

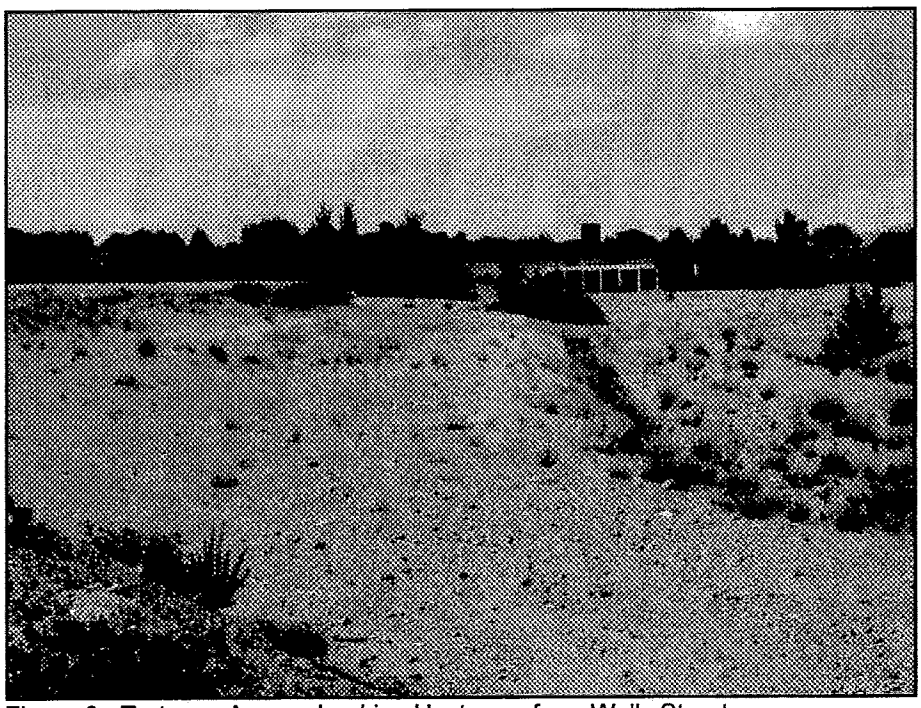

Figure 3. Tortugas Arroyo, Looking Upstream from Wells Street.

2.3 TOTAL MAXIMUM DAILY LOADS

Part 1.4.6 of the MS4 General Permit prohibits authorization of discharges that are inconsistent with a Total Maximum Daily Load (TMDL) for impaired surface water, unless the SWMP includes measures or controls that are consistent with the assumptions and requirements of the TMDL. NMSU has determined that its storm water discharges are eligible for coverage under the general permit since no TMDL has been established for the arroyos that receive their discharges.

2.4 ENDANGERED SPECIES ACT ELIGIBILITY EVALUATION

According to Part 1.5 of the MS4 General Permit, coverage under the permit is only available if the MS4 operator's storm water discharges will not jeopardize the continued existence of any species that are listed as endangered or threatened according to the Federal Endangered Species Act (ESA) or will not result in the adverse modification or destruction of habitat that is designated as critical by the ESA. The MS4 operator's storm water discharge should not cause a prohibited "take" of endangered or threatened species unless such takes are authorized by the ESA. If endangered or threatened species are located in proximity to the MS4, consultation with the U.S. Fish and Wildlife Service (USFWS) must be completed to address the effects of the storm water discharges and discharge-related activities on listed species and critical habitat.

The USFWS Southwest Region Ecological Services' website (USFWS, 2009) lists the following endangered species as potentially present in Doña Ana County:

- Least Tern (*Sterna antillarum*) - Bird;
- Northern Aplomado Falcon (*Falco femoralis septentrionalis*) - Bird;

- Rio Grande Silvery Minnow *(Hybognathus anarus)* - Fish;
- Sneed Pincushion Cactus (*Coryphantha sneedii var. sneedii*) - Plant; and
- Southwestern Willow Flycatcher (*Empidonax traillii* extimus) - Bird.

The website also lists the Mexican Spotted Owl (*Strix occidentalis lucida*) potentially present in Doña Ana County as a threatened bird species (USFWS, 2009).

New Mexico State University assessed the potential effects of its storm water discharges, allowable non-storm water discharges and discharge-related activities on the above species using the criteria in Appendix A of the MS4 General Permit. No endangered or threatened species or critical habitat are believed to occur in proximity to the MS4 or the MS4's points of discharge. Therefore, the portion of NMSU within the Las Cruces Urbanized Area is eligible for general permit authorization of its MS4 discharges under Part 1.5.3.1 ESA Criterion A of the permit. Refer to Appendix B of the SWMP for the complete ESA Eligibility Evaluation.

2.5 NATIONAL HISTORIC PRESERVATION ACT ELIGIBILITY EVALUATION

Part 1.6 of the MS4 General Permit requires NMSU to assess its compliance with the National Historic Preservation Act (NHPA) in order to be eligible for authorization of its discharges by the permit. NMSU is required to assure storm water discharges, non-storm water discharges, and discharge-related activities do not affect property that is listed or is eligible for listing on the National Register of Historic Places. If discharges affect a property protected by the NHPA, a written agreement must be obtained from the State Historic Preservation Office (SHPO) that outlines all measures NMSU will undertake to mitigate or prevent adverse effects on the historic property.

The National Register of Historic Places contains five listed historic properties within New Mexico State University's portion of the Las Cruces Urbanized Area (National Park Service, 2009). The properties are:

- Former Air Science Building, now the William Conroy Honors Center;
- Foster Hall;
- Goddard Hall;
- Former University President's House, now the Nason House; and
- Elephant Butte Irrigation District (EBID) structures.

NMSU evaluated its permit eligibility in relation to the NHPA using the criteria in Appendix B of the MS4 General Permit. The evaluation and documentation of coordination with the New Mexico Historic Preservation Division are in SWMP Appendix C. NMSU determined that the portion of the university that is within the Las Cruces Urbanized Area is eligible for general permit authorization of its MS4 discharges under Part 1.6.1.1 NHPA Criterion A of the permit.

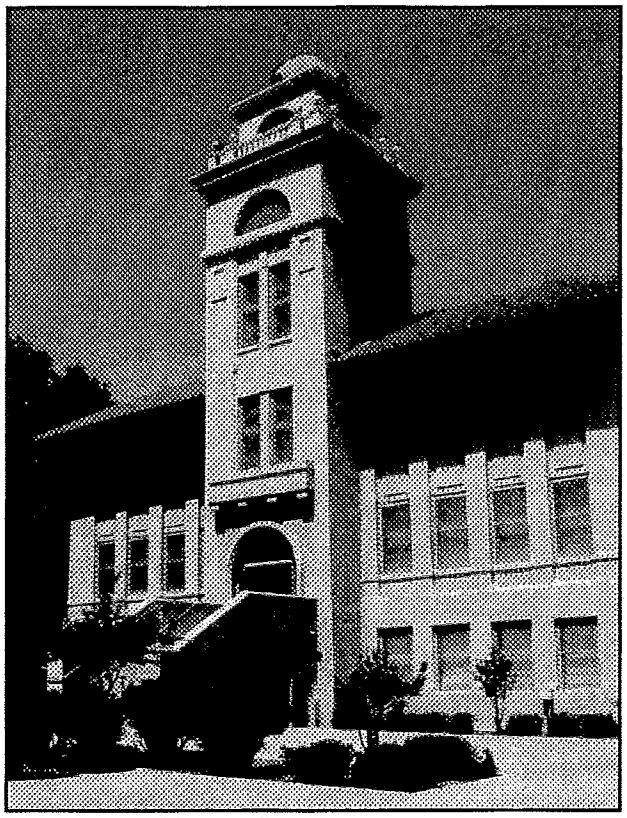

Figure 4. Goddard Hall

3.0 MINIMUM CONTROL MEASURES

The MS4 General Permit (GP) outlines six Minimum Control Measures (MCM) for the SWMP:

- Public Education and Outreach on Storm Water Impacts
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Runoff Control
- Post-Construction Storm Water Management in New Development and Redevelopment
- Pollution Prevention/Good Housekeeping for Municipal Operations

An MCM consists of Best Management Practices (BMPs) to prevent or reduce the discharge of pollutants. According to the Code of Federal Regulations, Part 40, Section 122.34, implementation of the BMPs consistent with an authorized SWMP constitutes compliance with the Maximum Extent Practicable (MEP) standard for an MS4.

The following were considered in selecting BMPs for each MCM:

- Existing resources and activities that could be utilized to protect storm water quality;
- Limited legal authority of a university;
- Size of the population impacted; and
- Type of water bodies receiving discharges from the MS4.

BMPs are discussed in Section 3.0 of the SWMP. Schedules and measurable goals for the BMPs are in Section 4.0.

3.1 PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS

3.1.1 Target Audiences and Target Pollutants

NMSU is a non-traditional municipality as described in General Permit Part 5.2.1.1.2. The target audiences for its public education and outreach are:

- Students that live both on and off campus;
- Faculty and staff;
- Tenants in leased research facilities; and
- Visitors to events held on campus.

The NMSU grounds maintenance staff inspects the campus for pollutants three times a week. The most common pollutant found is trash. Public education and outreach activities for staff and visitors will be primarily targeted at this pollutant.

There are no commercial or industrial enterprises on campus to generate pollutants. Potential pollutants from educational and research activities are chemical materials and wastes and general trash and debris. Education efforts targeted at faculty, staff and tenants will be focused on proper material and waste handling and preventing materials and wastes from being in contact with storm water.

NMSU has approximately 500 houses and townhouses for student family housing. The housing areas are similar to subdivisions in a traditional municipality. Pollutants typical of residential areas are lawn waste, household hazardous waste, pet waste, wash waters, and trash. Public education for residents will target these pollutants.

Figure 5. Tom Fort Village Family Housing.

3.1.2 General Description and Methods

NMSU will conduct an educational program to inform the public on the campus about storm water quality in the Las Cruces Urbanized Area. The program will emphasize the public's role and responsibility in improving storm water quality. Educating the public is also critical to generating support for the SWMP.

NMSU has a wide variety of methods available for public education and outreach. The targeted audiences are well educated and computer literate. The methods used will primarily be electronic in support of NMSU's sustainability efforts to reduce the use of natural resources. Methods that may be used include, but are not limited to:

- Public service announcements, tag lines, and/or information segments on KRWG 90.7 FM, a public radio station that operates from NMSU;
- Segments for local programming on KRWG-TV;
- Public service announcements and/or information segments on KRUX, a student-operated, non-commercial radio station;
- E-mail distribution systems for students, faculty, and staff;
- Advertisements in The Round Up, a student newspaper;
- @NMSU, an electronic newsletter;
- Press releases to the Round Up and to the Las Cruces Sun-News;
- Programming for television monitors in the Corbett Center Student Union; and
- NMSU website.

Using these methods, NMSU estimates that it will contact over 17,000 students, 3,400 faculty members, 1100 staff members, and approximately 500 research tenants each year.

3.1.3 Best Management Practices

BMP 1-1 Communications Plan

NMSU's Office of News and Media Relations has a highly qualified, professional communications staff. They will develop a written Communications Plan for storm water pollution prevention. The plan will establish specific messages for the target audiences in each year of the permit. Methods used for communicating the messages will vary as needed to be effective based on the topic and the audience.

BMP 1-2 Storm Water Web Page

NMSU will develop a storm water web page on its website. The page will describe the connection between storm water runoff and the watershed's water quality. It will provide information about things the targeted audiences can do to reduce the pollutants in storm water and to protect water quality. The public will have access to NMSU's SWMP and its annual reports through this web page.

BMP 1-3 @NMSU Articles

@NMSU is an electronic newsletter that is distributed to faculty and staff twice a month. The newsletter will be used to inform the faculty and staff about development of the NMSU SWMP and its implementation. The articles will include information on the role that faculty and staff have in preventing storm water pollution. Since NMSU is the leading institution of higher education and research in the Las Cruces Urbanized Area, the newsletter will also be used to encourage faculty and staff involvement in leadership and outreach on storm water pollution prevention in the watershed.

BMP 1-4 Family Housing Information Package

NMSU will develop information on storm water pollution prevention to be included in the information package given to new residents of family housing. Topics that may be included are household hazardous waste, pet waste, car washing, fertilizers, pesticides, and trash.

BMP 1-5 Family Housing Newsletter

The Office of Housing and Residential Life publishes a monthly newsletter for residents of family housing. The newsletter will be used to regularly communicate pollution prevention information to the residents.

BMP 1-6 Special Event Pollution Prevention

The university's athletic facilities are frequently used by sports leagues, concert promoters, and other non-university groups. The visitors that attend these events are a source of trash and debris. NMSU will review its facility use agreements and identify a means to include pollution prevention educational material and requirements in the agreements.

BMP 1-7 Public Radio and Television

KRWG media from NMSU provides public radio and television services to southern New Mexico and west Texas. In 2006 KRWG produced and aired *Rio Grande: How Clean is Our River?* This program looked at water quality in the Rio Grande and the types of point and non-point sources pollutants that affect the river. NMSU will produce a follow-on program that focuses on the sources of storm water pollutants. The program may focus on the public contribution to pollutants in storm water, storm water pollutant research being conducted by the New Mexico Water Resources Research Institute (WRRI) located at NMSU, storm water pollution prevention activities of the Paso Del Norte Watershed Council in which NMSU participates, or other storm water pollution prevention information.

3.1.4 Program Coordinator

The Assistant Vice-President of Facilities and Services is the Program Coordinator. The coordinator will implement the Public Education and Outreach BMPs with assistance from the responsible departments.

3.2 PUBLIC INVOLVEMENT/PARTICIPATION

3.2.1 General Description

As employees of NMSU, faculty and staff will be targeted for involvement in the SWMP through the BMPs in the sixth MCM, Pollution Prevention/Good Housekeeping for Municipal Operations (Section 3.6). The Public Involvement/Participation MCM will focus on involving students in pollution prevention. The student body is the largest audience on campus. They are also the community's future leaders and have the potential to change the community's views of its watersheds and water resources.

3.2.2 SWMP Public Review and Comment Process

The NOI and SWMP will be available through a link on NMSU's website (BMP1-2). NMSU will designate a person to receive public comments on the SWMP. A comment log will be used to track public input. The log will document the comment received, the response provided (if necessary), and the manner in which the comment was evaluated and addressed in the SWMP. Results of the public input and any changes to the SWMP will be documented in NMSU's annual reports.

The student newspaper, The Round Up, is published twice weekly. It has a circulation of approximately 10,500 copies. In addition to the official Public Notice in the Las Cruces Sun-News (Section 2.1), NMSU will notify students of the SWMP through an advertisement in The Round Up.

3.2.3 Best Management Practices

BMP 2-1 Web Access to the SWMP

A link to the SWMP will be maintained on NMSU's storm water web page (BMP1-2). The web page will include the name, phone number and e-mail address of a person that the public can contact about the SWMP. The public will be encouraged to submit questions, comments and concerns related to the SWMP. Annual reports will also be posted for public review as they become available.

BMP 2-2 Advertisements in The Round Up

Advertisements will be published in The Round Up to inform students about the opportunity to comment on and become involved in the SWMP. Advertisements will also be used to solicit comments on annual reports. These advertisements will be in addition to the formal, permit-required Public Notices that will be published in the Las Cruces Sun-News for the SWMP and the annual reports. The permit-required notices occur at the beginning of fall semester when students are distracted by starting the school year. The advertisements in The Round Up will be published later in the fall semester when students will be more receptive to becoming involved.

BMP 2-3 Public Report Phone Number

NMSU will publicize a phone number where the public can report illegal dumping, illicit discharges, construction site discharges and other types of pollutants that have the potential to enter the MS4.

BMP 2-4 Student Government Activities

The two largest student governing bodies that meet regularly are Associated Students of NMSU and Student Government for Campus Residents. Both of these organizations have a history of student involvement and volunteer activities.

Associated Students of NMSU (ASNMSU) is the student-run government with the purpose of serving the entire student body. It consists of an Executive, Legislative and Judicial Branches. One of the goals of the Executive Branch is to provide opportunities for students to become involved in campus-wide special events. ASNMSU is already involved in sustainability and environmental activities such as the Aggie Recycling Program. ASNMSU goals include increasing student awareness of environment issues and "green" programs on campus.

Student Government for Campus Residents (SGCR) is a student-run organization that serves all students in on-campus housing. The organization meets weekly during the school year. One of its goals is to provide opportunities to build a sense of community on campus.

NMSU staff members will meet with the Executive Branch of ASNMSU and with SGCR to discuss the SWMP and ways that students can become involved. NMSU will encourage and support the involvement of students in special events focused on the environment and pollution prevention, such as Earth Day celebrations, clean-up competitions between student groups, or similar events.

3.2.4 Program Coordinator

The Assistant Vice-President of Facilities and Services is the Program Coordinator. The coordinator will implement the Public Involvement/Participation BMPs with assistance from the responsible departments.

3.3 ILLICIT DISCHARGE DETECTION AND ELIMINATION

3.3.1 Allowable Non-Storm Water Discharges

An illicit discharge is any discharge to NMSU's MS4 that is not composed entirely of storm water; except for discharges authorized by another NPDES permit. NMSU believes the following categories of non-storm water discharges are not significant contributors of pollutants to the MS4. As such, they are not considered illicit discharges and are allowable non-storm water discharges:

- Water line flushing;
- Landscape irrigation;

- Diverted stream flows;
- Rising ground waters;
- Uncontaminated ground water infiltration (as defined in 40 CFR Section 35.2005(20));
- Uncontaminated pumped ground water;
- Discharges from potable water sources;
- Foundation drains;
- Air conditioning condensate;
- Irrigation water;
- Springs;
- Water from crawl space pumps;
- Footing drains;
- Lawn watering;
- Individual residential car washing;
- Flows from wetlands and riparian habitats;
- De-chlorinated swimming pool discharges;
- Street wash water; and
- Discharges from emergency fire fighting activities (does not include discharges from fire fighting training activities).

NMSU's Central Plant includes a 3-million gallon thermal storage tank that is drained occasionally for maintenance. Typically, several years pass between the times when maintenance is needed. Utilities Services samples and tests the water in the tank for chemicals of concern and determines the water to be safe for discharge before draining the tank. This precaution ensures that discharges from the thermal storage tank are not significant sources of pollutants to the MS4; and therefore discharges from the thermal storage tank are considered allowable discharges.

3.3.2 MS4 Map

Exhibit 2 is an interim map that shows the location of waters of the U.S. and the City of Las Cruces MS4 that are either within or downstream of the portion of the NMSU MS4 that is covered by this SWMP. The NMSU MS4 consists of surface structures, except for approximately 1200 LF of subsurface storm drain pipe in College Avenue.

On the western side of the main campus, storm water runoff flows into either the College Avenue storm drain or the NMSU Regional Pond, both of which have an outfall to the City of Las Cruces storm drain system. The pond receives storm water runoff from NMSU and the NM Department of Transportation right-of-way for IH-10. The outlet of the pond is controlled by a valve. The valve is normally closed to detain storm water runoff from NMSU and discharge it into the City of Las Cruces storm drain after the city's peak discharge has passed.

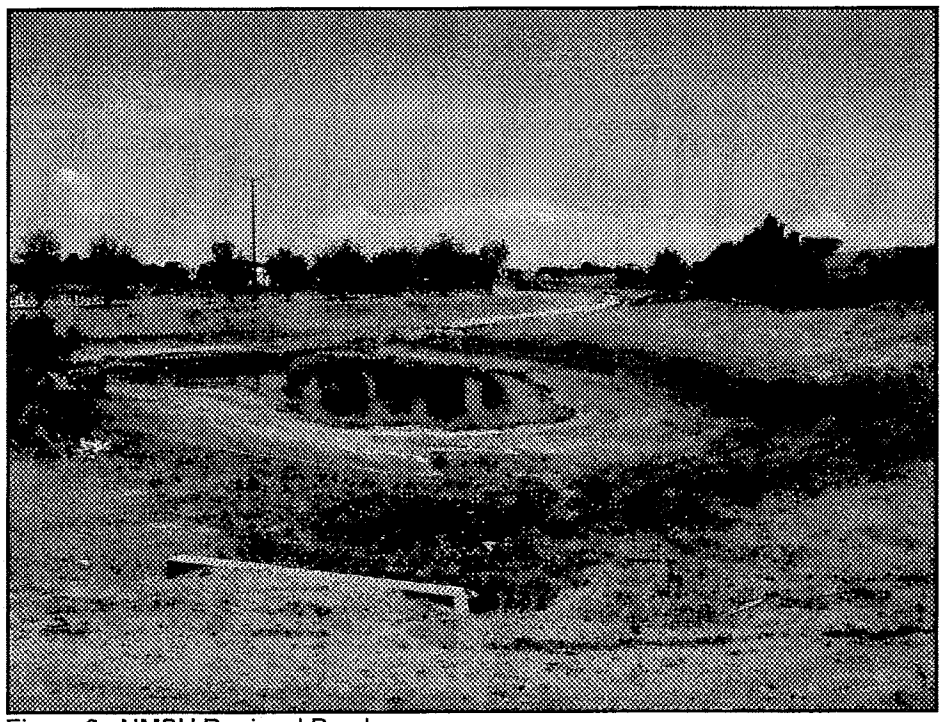

Figure 6. NMSU Regional Pond.

Outfalls of surface flow into the arroyos on the eastern side of the main campus will be mapped during the remainder of the permit term. Updated maps will be submitted with each annual report.

3.3.3 On-Site Sewage Disposal Systems

NMSU does not have on-site sewage disposal systems within the main campus. NMSU operates two on-site systems on the agricultural lands west of IH-10 (Exhibit 1). One of these systems, at the Fabian Garcia Research Center, is an old cistern-style, septic system in poor condition. The center is located in the 400 block of College Street , between College and University Avenue. Sanitary sewer service is currently not available to the portion of the research center that is served by the septic system. The City of Las Cruces has proposed improvements to their sanitary sewer system in this area. Although this area is outside of the NMSU MS4 permit coverage, NMSU wants to be a leading environmental steward in the Las Cruces area. The research center will be connected to the new sanitary sewer when it becomes available.

3.3.4 Detection and Elimination Methods

Since all the drainage ways within the main campus are normally dry, visual inspections will be used to detect illicit discharges. Grounds maintenance crews patrol the entire campus three times a week looking for trash and other problems. They will be trained to identify illicit discharges.

When grounds maintenance crews find a flow or material discharged (dumped) where none should be present, they will track it back to the source and determine if it's an

allowable discharge (Section 3.3.1). In cases where the discharge is not allowable, the crews will take steps to stop the discharge. Methods will vary depending on the source:

- If the discharge is a result of a leak, break or other problem with NMSU infrastructure, the appropriate department will be contacted to make repairs and clean-up the discharge.
- If the discharge is the result of faculty or staff actions, EH&S will be contacted to inform the faculty or staff of correct material and waste handling methods and to direct the clean-up.
- If the discharge is the result of a tenant's actions, the Office of Real Estate will be contacted to enforce lease requirements for compliance with environmental laws, regulations and permits.
- If the discharge is a result of students or the general public, the NMSU Police Department will be contacted for enforcement.
- If no source can be determined, EH&S will be contacted to remediate the discharge with assistance from the Office of Facilities and Services.

3.3.5 Enforcement Policy

The NMSU Police Department, being a state law enforcement agency, has the authority to enforce the New Mexico Administrative Code (NMAC) and can issue citations for violations of the NMAC. NMAC 20.9.2 contains the state requirements for solid waste management. Solid waste is defined in the code as "*garbage, refuse, sludge from a waste treatment plant, water supply treatment plant or air pollution control facility and other discarded material including solid, liquid, semisolid, or contained gaseous material resulting from industrial commercial, mining and agricultural operations and from community activities...*"

The following actions are prohibited by NMAC 20.9.2.10 and are illicit discharges:

- Disposal of any solid waste that will harm the environment or endangers the public health, welfare or safety; and
- Disposal of any solid waste in a place other than a solid waste facility.

When a responsible party can be identified for illicit discharges, NMSU will first inform the party of the violation and direct them to remove and properly dispose of the waste. If the responsible party is affiliated with a university department and does not have the means to remediate the illicit discharge, EH&S will remove and dispose of the waste for them and charge the department. When the responsible party is not affiliated with a university department and is unwilling to remove and dispose of the waste, the NMSU Police Department will use its authority to issue citations and initiate judicial enforcement orders for the cleanup. In cases where there is immediate threat to life, health, safety and/or the environment, EH&S may cleanup the discharge and work with the NMSU Police Department to obtain compensation through a judicial order.

3.3.6 Employee Training for IDDE

NMSU grounds maintenance employees will be trained to identify illicit discharges. The training may include:

- Types of allowable discharges;
- Procedures for identifying the source of a discharge; and
- Response and reporting procedures if the discharge is determined to be an illicit discharge.

3.3.7 Public Education for IDDE

Information about the effects of illicit discharges on storm water quality will be included in the BMPs for Public Education and Outreach (Section 3.1).

3.3.8 Best Management Practices

BMP 3-1 Outfall Mapping

NMSU will identify and map the locations where point source discharges from the MS4 enter the arroyos that flow through the main campus. The map will be updated when new construction adds an outfall to the MS4.

BMP 3-2 Outfall Screening

After the outfall map is completed, NMSU will annually inspect all mapped outfalls for evidence of illicit discharges. If illicit discharges are found, they will be handled as discussed in Sections 3.3.4 and 3.3.5.

BMP 3-3 Recycling

NMSU offers recycling for several types of materials including, but not limited to: plastic #1, aluminum, white paper, colored paper, newspaper, magazines and cardboard. NMSU has over 130 bin locations for recyclables throughout campus, making it easy to recycle and to prevent drink containers and paper from being discarded into the MS4. Work orders can be placed for pick-up of materials such as appliances, concrete, asphalt, wood, and construction and demolition debris.

Recycling is important to the students, faculty and staff at NMSU, as evidenced by awards received in the past two years. In 2008 the university received the Post-Secondary School Recycling Program of the Year Award. In 2009 NMSU was ranked number three out of 510 universities that participated in Recyclemania 2009.

NMSU is developing a curbside recycling program that will be implemented for its family housing residents.

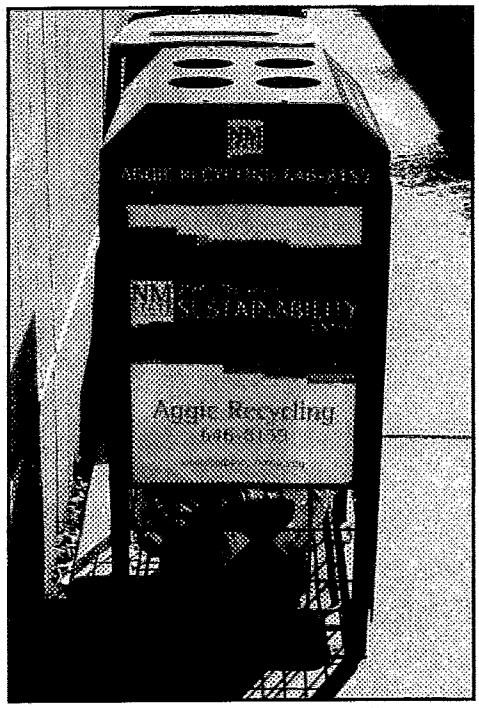

Figure 7. Bottle and Can Recycling.

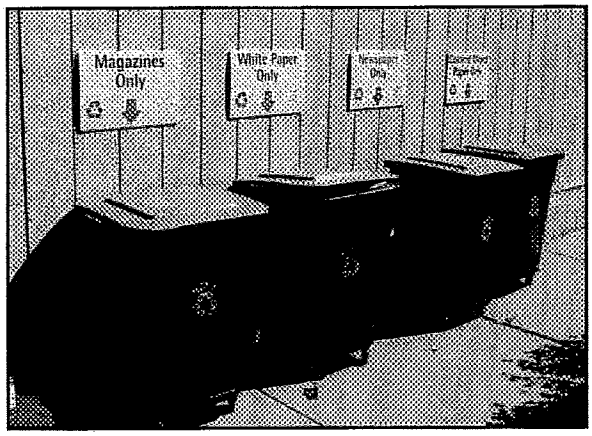

Figure 8. Paper Recycling.

BMP 3-4 Household Hazardous Waste (HHW) Information for Residents

Residents of student family housing have the potential to generate HHW such as used motor vehicle fluids, paint and paint thinner, stains, printer cartridges, and pesticides. The information developed for family housing under BMP 1-4 will include instructions on proper disposal of HHW. The appropriate location is the City of Las Cruces Recycling Center. NMSU will formalize the agreement for students to use this facility.

BMP 3-5 Public Trash Receptacles

NMSU maintains over 150 trash receptacles and nearly 90 dumpster locations throughout campus to make it easy to dispose of waste material correctly. They are inspected and serviced a minimum of once a week to ensure they are not overflowing. NMSU also provides dumpsters for festivals, sports, and other special events on campus to decrease the amount of trash discharged from these events.

BMP 3-6 Inspections for Trash and Debris

At least once a week, Facilities Maintenance staff inspects for and removes trash and debris from all areas of the campus grounds that are exposed to storm water. Material that is recyclable is placed in recycling bins or transported to the Material Recycling Facility. Unrecyclable material is placed in the waste bins throughout campus.

BMP 3-7 Grounds Maintenance Employee Training

Employees will be trained to identify illicit discharges while performing their regular maintenance duties. Training will be accomplished during one of the regularly scheduled, monthly safety training sessions.

3.3.9 Program Coordinator

The Assistant Vice-President of Facilities and Services is the Program Coordinator. The coordinator will implement the Illicit Discharge Detection and Elimination BMPs with assistance from the responsible departments.

3.4 CONSTRUCTION SITE STORM WATER RUNOFF CONTROLS

3.4.1 Legal Authority and Compliance Procedures

Capital improvement projects at NMSU are constructed by companies under contract to NMSU. As a state institution, construction at NMSU is governed by the New Mexico Construction Industries Division (CID) rules as published in the NMAC. NMSU does not have the legal authority to adopt ordinances. Enforcement of construction requirements are done through issuance of a building permit by CID and through enforcement of construction contract requirements by Facilities Planning and Construction.

NMSU's construction contracts require the contractor to comply with NPDES General Permit No. NMR150000, the Construction General Permit (CGP), including preparation of a Storm Water Pollution Prevention Plan (SWPPP). Erosion, sediment and waste controls are part of the SWPPP. The contractor is required to submit the SWPPP to NMSU for review. NMSU does not allow the contractor to start any soil disturbing activities until they have reviewed and accepted the SWPPP.

Portions of NMSU are leased to research tenants. New construction by tenants is subject to the same CID building permit requirements as NMSU construction and to the NPDES CGP. Tenants manage and inspect their own construction projects. NMSU's authority over tenant construction is limited to the terms of the tenant's lease.

3.4.2 Inspection and Enforcement Process

NMSU staff is on the university's construction sites daily to inspect for compliance with all requirements of construction contracts. When a deficiency is observed, NMSU gives the contractor a notice of the deficiency and seven days to correct it. If the contractor continues to not comply with contract requirements, NMSU will withhold contract payment for the work and may use contract funds to correct the deficiency. NMSU uses these procedures to enforce the contract requirement to comply with the CGP. If these procedures are unsuccessful, NMSU will contact the NMED to enforce the CGP requirements.

From public roads, NMSU can visually check tenant construction sites for the following:

- NPDES posting(s);

- Well-maintained BMPs for erosion and sediment controls; and
- Evidence of tracking or discharges onto streets or into arroyos.

When NMSU observes conditions that may not be in compliance the CGP, they will use their Office of Real Estate to inform the tenant that NMED will be notified if the site conditions do not improve. During the permit term, NMSU will review its legal authority and its leases to determine if additional inspection and enforcement procedures can be implemented for tenant construction sites.

3.4.3 Public Reports of Construction Site Problems

Information about reporting pollution from construction sites will be included in the publicity for the Public Report Phone Number (BMP 2-3). BMPs for Public Education and Outreach (Section 3.1) will also include information about reporting problems at construction sites.

3.4.4 Best Management Practices

BMP 4-1 NMSU Employee SWPPP Training

NMSU employees who review SWPPPs and inspect construction sites will be trained in the requirements of the CGP.

BMP 4-2 SWPPP Review Checklist

NMSU will develop a checklist for reviewers to use to ensure that the SWPPPs for NMSU projects include all elements required by the CGP.

BMP 4-3 SWPPP Inspection Report

NMSU will develop a standard SWPPP Inspection Report that meets the report requirements of the CGP. This report will be used to inspect NMSU construction sites at the frequency required in the CGP.

BMP 4-4 Tenant Construction Compliance

NMSU will review its leases with the tenants to determine its authority to enforce the erosion sediment and waste control requirements in the CGP. Within its legal authority, NMSU will revise existing leases and ensure new leases require compliance with the CGP.

BMP 4-5 Tenant Construction Inspection

Access to and authority over tenant construction sites are currently constrained by the terms of the tenant's lease. As NMSU reviews the leases and determines changes that can be made to allow inspection, NMSU will also develop inspection procedures. The inspection procedures will be implemented when the leases are revised and/or new leases are signed.

3.4.5 Program Coordinator

The Assistant Vice-President of Facilities and Services is the Program Coordinator. The coordinator will implement the BMPs under the Construction Site Storm Water Runoff Control MCM with assistance from the responsible departments.

3.5 POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

3.5.1 Legal Authority and Enforcement Procedures

As a state institution and the only land owner within the NMSU MS4, NMSU does not have the typical legal authority to control development through ordinances. Instead, development is controlled through contracts and leases issued by NMSU.

Facilities Planning and Construction uses professional services contracts with architectural and engineering (A/E) firms to plan and design new development. NMSU's design requirements are included in the contract. NMSU reviews the plans prepared by the A/E firm to verify that design is in accordance with NMSU's requirements. NMSU's construction inspectors ensure the development is built according to the plans.

Development designs for NMSU's tenants are accomplished by the tenant's design team; however, NMSU reviews the tenant's plans for compatibility with the university's standards and guidelines. NMSU's authority to enforce the requirements is limited to the terms of the tenant's lease.

3.5.2 Operations and Maintenance

As the sole landowner within the main campus, all drainage structures are part of the NMSU MS4. There are no private structures. Since the majority of drainage on campus is by sheet flow, the MS4 contains few structures that require maintenance. Long-term operation and maintenance of the structures is provided by the Office of Facilities and Services.

Currently, NMSU's MS4 maintenance activities are focused on the streets. Street sweepers are used to remove pollutants from the streets. After storm events, equipment is used to remove sediment and debris that the arroyos deposit on the streets within the main campus. During implementation of the SWMP, the maintenance program will be extended to other MS4 structures.

3.5.3 Developer and Public Education

As the leading institution of higher education and research in the Las Cruces UA, NMSU can play a significant role in providing education about Low Impact Development (LID).

LID methods are relatively new in the southwest region of the U.S. One of the obstacles to implementing LID methods is that many of the current methods publicized by the EPA and the LID Center were developed for the east and west coasts. The climate on the coasts is significantly different and wetter than the climate of southern New Mexico.

NMSU can be a leader in overcoming obstacles to LID in the region by providing research and education about LID methods that are appropriate for southern New Mexico. NMSU will explore opportunities to work with the City of Las Cruces and Doña Ana County to provide developer and public education on LID. NMSU's involvement may be through its staff, faculty, and/or the New Mexico Water Resources Research Institute.

3.5.4 Best Management Practices

BMP 5-1 LEED Silver Standards for Capital Improvement Projects

NMSU is a signatory to the American College & University President's Climate Commitment. The commitment is an effort by college and university presidents to show leadership in addressing global warming. By signing this commitment, the President of NMSU promised to develop a comprehensive plan for NMSU to achieve climate neutrality. He also committed to implementing measures to reduce greenhouse gases while the comprehensive plan is being developed. One of these measures is establishing a policy that all new capital improvement projects will be built to at least the U.S. Green Building Council's LEED Silver standard or equivalent.

To achieve LEED Silver standard, specific criteria must be met in Site Development and Storm Water Design. Site Development requirements are to conserve existing natural resources and restore damaged areas as well as to provide a high ratio of open spaces. Storm Water Design requirements are to limit disruption of natural hydrology by reducing impervious cover, increase on-site infiltration, reduce or eliminate pollution from storm water runoff, and limit the disruption of natural water flows.

BMP 5-2 Drainage Design Guidelines

Currently, every development design team is required to include a licensed civil engineer in the State of New Mexico to design the grading and drainage plan. NMSU requires the post-development hydrograph (total volume and peak flow rate) for the 100-year return period storm event to match the pre-developed hydrograph. The remainder of the drainage design is generally left to the judgment of the engineer. During review of the plans, NMSU may comment on the design based on known drainage problems and experience; however, there are no other standard design requirements.

NMSU will develop written Drainage Design Guidelines for new development and redevelopment projects. The guidelines will encourage minimization of impervious area, preservation of natural drainage systems, and the incorporation of design features to protect or improve storm water quality.

BMP 5-3 Tenant Development Requirements

NMSU will review its leases with tenants to determine its authority to enforce development standards. Within its legal authority, NMSU will develop procedures to require and review the tenants' development plans for compliance with the Drainage Design Guidelines.

BMP 5-4 Plan Review

Office of Facilities and Services – Engineering currently participates in plan review for capital improvement projects. They will expand their review to include compliance with the new Drainage Design Guidelines. Within their legal authority, they will also review development plans for the projects of NMSU's tenants.

BMP 5-5 MS4 Inspection and Repair Program

NMSU will inventory its MS4 infrastructure, excluding curbs and gutters. Structures that will be inventoried include ponds and basins, inlets, storm drains, ditches and swales, concrete flumes and other constructed or modified (e.g. lined with riprap) drainage ways. After the inventory is completed, NMSU will develop a schedule for inspecting the structures. Cleaning and repair of the structures will be accomplished as needed based on the results of inspections.

BMP 5-6 LID Workshop

NMSU staff and faculty or WRRI researchers interested in LID will meet with representatives from the City of Las Cruces and Doña Ana County to discuss the potential for cooperating on a regional LID the workshop. If there is sufficient interest, NMSU will plan and present an LID Workshop for the region.

3.5.5 Program Coordinator

The Assistant Vice-President of Facilities and Services is the Program Coordinator. The coordinator will implement the Development BMPs, with assistance from the responsible departments.

3.6 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

3.6.1 Affected Operations

Operations and facilities that occur outside or that have materials and/or wastes located outside have the potential to discharge pollutants to storm water. At NMSU, these operations and facilities include:

- Facilities maintenance;
- Fleet maintenance facility;
- Farm equipment maintenance shop;
- Lawn maintenance shop;
- Craft shops (painting, carpentry, welding, signs, etc.);
- Central Plant;
- Material Recycling Facility (MRF);
- Composting facility;
- Horse stables and facilities; and
- Animal study and research facilities.

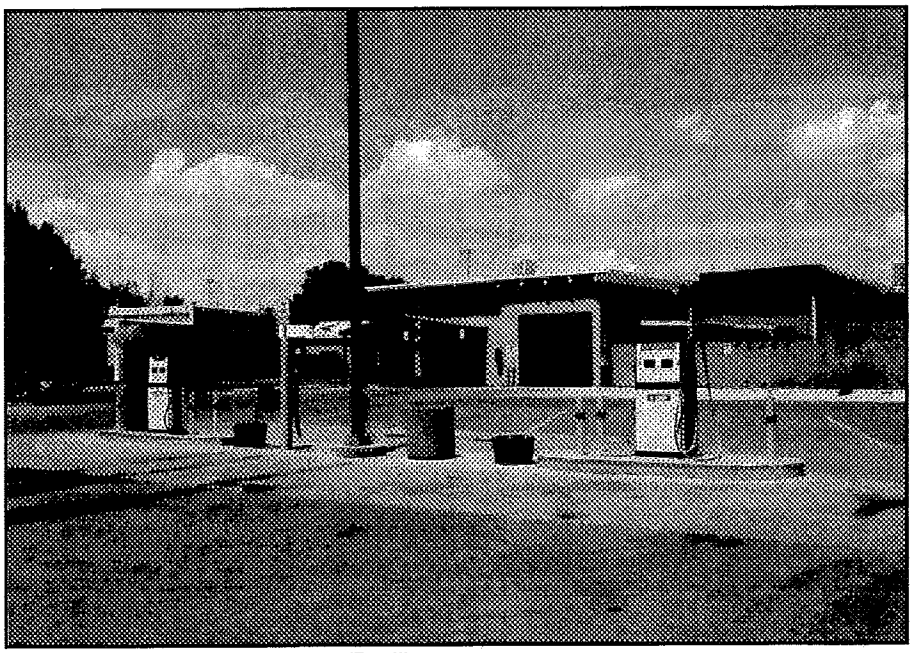

Figure 9. Fleet Maintenance Facility.

NMSU construction activities are discussed under the Construction Site Storm Water Runoff Control MCM (Section 3.4).

3.6.2 Industrial Facilities

NMSU operates a physical plant, known as the Central Plant, which produces electricity, chilled water for space cooling, and domestic hot water on the main campus. Natural gas is used to fuel the turbine generator cogeneration system and the steam boilers. Electricity generated by the facility is solely for support of NMSU's education and research mission (SIC Code 8221). No electricity is sold, and no receipts are received for generation of electricity. The Central Plant is not a primary industrial activity as defined by NPDES General Permit No. NMR05000 for Storm Water Discharges Associated with Industrial Activity, also known as the Multi-Sector General Permit (MSGP). Therefore, storm water discharges from the Central Plant are not required to be authorized by the MSGP.

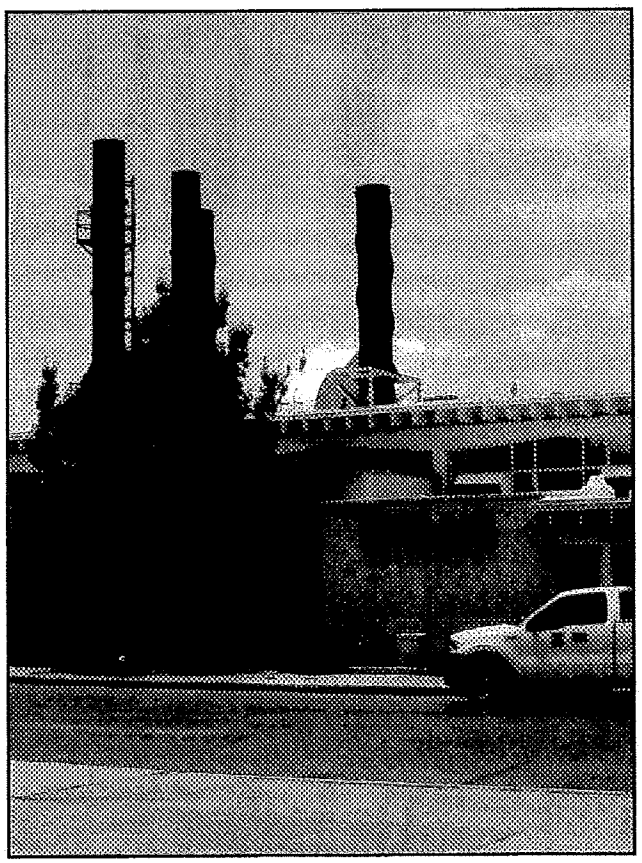

Figure 10. NMSU Central Plant.

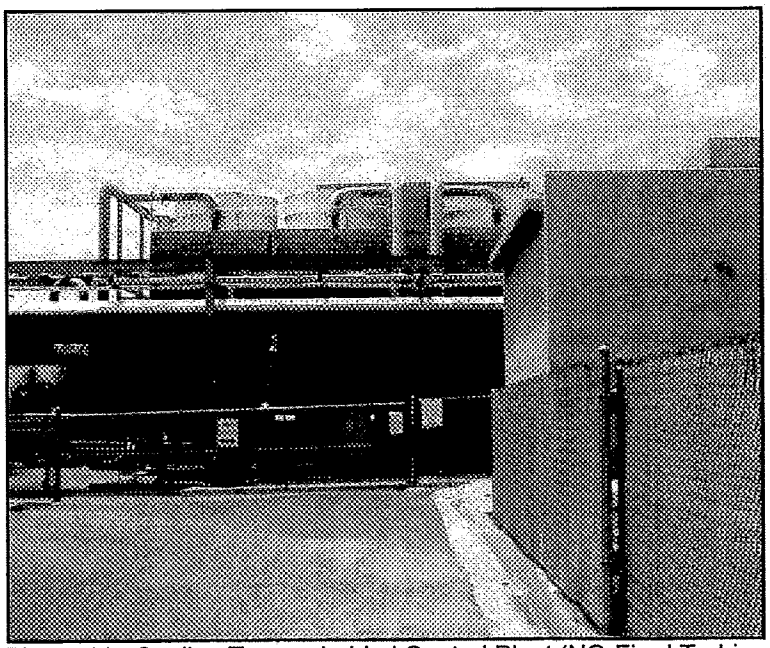

Figure 11. Cooling Towers behind Central Plant (NG-Fired Turbines are within Building on the Right Side).

NMSU also operates the Material Recycling Facility (MRF). The MRF stores recyclable material collected on campus and processes it to be transported and sold to a recycling wholesaler. The MRF includes the following processes:

- Baler for paper and cardboard;
- Can densifier; and
- Shredder for plastic bottles.

Although NMSU processes recyclable materials at the MRF, they only process materials collected from NMSU facilities. The materials are then sold to a wholesaler. NMSU itself is not a wholesaler under SIC Code 5093. Therefore, storm water discharges from the facility are not required to be authorized by the MSGP.

There are no other activities on the main campus that could potentially meet the definition of an industrial activity. Both the Central Plant and the MRF are included in the affected operations (Section 3.6.1) that will implement BMPs under the Pollution Prevention/Good Housekeeping for Municipal Operations MCM.

3.6.3 Employee Training Program

Employees in the affected operations will be trained in the following, as appropriate for their operations that are exposed to storm water:

- General storm water pollution prevention;
- BMP implementation; and
- Relevant EH&S waste management procedures.

3.6.4 Best Management Practices

BMP 6-1 Good Housekeeping Procedures for Shops and Maintenance Facilities

NMSU will identify which craft shops, maintenance facilities and similar facilities have exterior areas where any of the following occur:

- Vehicles or equipment is held prior to repairs or maintenance;
- Supplies and materials are stored;
- Old parts and equipment are stored until haul-off;
- Chemicals are stored until they are needed; or
- Other activities with the potential to discharge pollutants to storm water.

For each of these facilities, NMSU will develop written good housekeeping procedures for the areas that are exposed to storm water. The procedures may contain, but are not limited to,

- Items that are prohibited from being stored outside;
- Water-proof containers, covers, or other BMPs to prevent contact with storm water;

- Berms, containment systems or other BMPs to prevent the discharge of pollutants;
- Regularly scheduled sweeping or other clean-up; and
- Quarterly visual inspections of the area.

The employees who operate each facility will be responsible for implementing the good-housekeeping procedures, including the quarterly inspection. Facility employees will be trained in the good housekeeping procedures after they are developed.

BMP 6-2 Annual Storm Water Pollution Prevention Inspections

EH&S manages NMSU's compliance with RCRA waste handling, storage and disposal regulations; OSHA hazard communication regulations; and other safety and environmental regulations. They are well versed in identifying pollutant sources and preventative measures. After the good housekeeping procedures are implemented (BMP 6-1), EH&S will annually perform independent facility inspections to ensure good housekeeping procedures and BMPs are adequate and to identify any new or changed operations that might require new procedures or BMPs.

BMP 6-3 Integrated Pest Management (IPM) Program

In 2009 NMSU assumed operation of grounds (open space) maintenance from a contractor. The contractor was using an IPM program. NMSU has adopted many of the same methods.

No pesticides are applied routinely. Lawns and plants are checked monthly for density of pests, and pesticides are applied only when thresholds are exceeded. The least toxic, species-specific pesticide is used whenever possible. Insecticidal soap is typically used first, with more toxic pesticides used only when the soap is not effective. NMSU has two state-licensed applicators who apply pesticides when necessary. NMSU will continue to use and expand its IPM practices and will develop a written IPM program.

BMP 6-4 Street Sweeping

The majority of storm water runoff at NMSU is by surface flow, most of which is conveyed through the streets. Stewart Street (Exhibit 2) is one of the university's main drainage ways. NMSU has a street sweeping program to reduce the amount of pollutants discharged with the storm water.

BMP 6-5 Material Handling Procedures for MS4 Maintenance

NMSU will develop written procedures for storing, handling and disposing of the material it removes from the MS4. This material includes debris collected in street sweepers, sediment and debris removed from arroyo low water crossings, and material from cleaning MS4 infrastructure (BMP 5-5). Employees will be trained in the material handling procedures after they are developed.

BMP 6-6 Composting of Landscaping Waste

For most lawns, NMSU uses mulching mowers to deposit the grass trimmings back into the lawn. Grass clippings that can't be mulched, pruning waste, and other organic matter from landscaping operations are taken to the university's on-campus composting facility. The finished compost is then returned to the landscaping as a slow-release, organic fertilizer. Using compost reduces the amount of chemical fertilizer that is applied to the landscaping.

BMP 6-7 Feasibility Study of Controls for Animal Pens

The west corner of the main campus triangle contains animal pens for research operations, animal science classes, and athletic teams. The animal population is below the threshold for a medium Concentrated Animal Feeding Operation (CAFO). The permitting authority has not designated the facility as a significant contributor of pollutants; therefore, it is not required to obtain permit authorization as a Small CAFO.

Although NMSU is not required to obtain permit authorization for discharges from its pens, NMSU is interested in reducing pollutants in storm water from the pens, if possible. NMSU will conduct a feasibility study of potential controls for the pens. The controls may be structural or non-structural (operational procedures).

3.6.5 Program Coordinator

The Assistant Vice-President of Facilities and Services is the Program Coordinator. The coordinator will implement the Municipal Operations BMPs, with assistance from the responsible departments.

4.0 SCHEDULE AND MEASUREABLE GOALS

Tables 1 through 6 present implementation schedules for BMPs and their measurable goals. The MS4 General Permit is effective for five years, starting on July 1, 2007 and expiring on June 30, 2012. Years 3, 4, and 5 in the tables refer to the corresponding permit year. The SWMP was prepared at the start of Year 3; therefore, no activities are shown for Years 1 and 2. Unless otherwise noted, the scheduled date of accomplishment for each measurable goal is June 30th of the permit year in which it is listed.

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Table 1. Public Education and Outreach on Storm Water Impacts: BMPs, Measurable Goals and Schedule

BMP NO.	TITLE	RESPONSIBLE DEPARTMENT	YEAR 3 July 1, 2009 - June 30, 2010	YEAR 4 July 1, 2010 - June 30, 2011	YEAR 5 July 1, 2011 - June 30, 2012
1-1	Communications Plan	News and Media Relations	Complete a Communications Plan by December 31, 2009 Track the methods used and the estimated number of contacts made	Track the methods used and the estimated number of contacts made	Track the methods used and the estimated number of contacts made
1-2	Storm Water Web Page	News and Media Relations	Establish web page by September 30, 2009	Review and update web page	Review and update web page
1-3	@NMSU Articles	News and Media Relations	Publish two articles	Publish two articles	Publish two articles
1-4	Family Housing Information Package	Housing and Residential Life	Develop and print information sheet or brochure about storm water pollution prevention for family housing residents	Track number of packages distributed	Track number of packages distributed
1-5	Family Housing Newsletter	Housing and Residential Life	Include pollution prevention information in two newsletters	Include pollution prevention information in two newsletters	Include pollution prevention information in two newsletters
1-6	Special Event Pollution Prevention	Athletics		Complete review of facility use agreements by December 31, 2010 Develop pollution prevention education and requirements for facility use agreements	Track number of facility use agreements that include pollution prevention education and requirements
1-7	Public Radio and Television	News Media and Relations			Produce program on sources of storm water pollutants

Table 2. Public Involvement/Participation: BMPs, Measurable Goals and Schedule

BMP NO.	TITLE	RESPONSIBLE DEPARTMENT	YEAR 3 July 1, 2009 - June 30, 2010	YEAR 4 July 1, 2010 - June 30, 2011	YEAR 5 July 1, 2011 - June 30, 2012
2-1	Web Access to the SWMP	News and Media Relations	Post SWMP on the web page by July 31, 2009	Add the annual report to the web page by August 31, 2010	Add the annual report to the web page by August 31, 2011
2-2	Advertisements in The Round Up	News and Media Relations	Publish an advertisement soliciting comments on and involvement in the SWMP by Nov. 15, 2009	Publish an advertisement soliciting comments on and involvement in the SWMP by Nov. 15, 2010	Publish an advertisement soliciting comments on and involvement in the SWMP by Nov. 15, 2011
2-3	Public Report Phone Number	Office of Facilities and Services	Establish the phone number and procedures for handling reports	Track the number and types of reports received	Track the number and types of reports received
2-4	Student Government Activities	News and Media Relations	Meet with ASNMSU Executive Branch and SGCR once each fall and spring semester	Meet with ASNMSU Executive Branch and SGCR once each fall and spring semester	Meet with ASNMSU Executive Branch and SGCR once each fall and spring semester

Table 3. Illicit Discharge Detection and Elimination: BMPs, Measurable Goals and Schedule

BMP NO.	TITLE	RESPONSIBLE DEPARTMENT	YEAR 3 July 1, 2009 - June 30, 2010	YEAR 4 July 1, 2010 - June 30, 2011	YEAR 5 July 1, 2011 - June 30, 2012
3-1	Outfall Mapping	Office of Facilities and Services	Complete a map of outfalls to arroyos in the main campus Add new MS4 outfalls to the map as they are constructed	Add new MS4 outfalls to the map as they are constructed	Add new MS4 outfalls to the map as they are constructed
3-2	Outfall Screening	Facilities Maintenance		Inspect 100% of mapped outfalls for signs of illicit discharges	Inspect 100% of mapped outfalls for signs of illicit discharges
3-3	Recycling	Facilities Maintenance	Track the types and amount of material recycled	Track the types and amount of material recycled	Track the types and amount of material recycled Implement curbside recycling for family housing
3-4	HHW Information for Residents	Housing and Residential Life	Formalize agreement for family housing residents to use the City of Las Cruces HHW collection center Include information about HHW disposal in the family housing information package (BMP 1-4)	Include information about HHW disposal in the family housing information package (BMP 1-4)	Include information about HHW disposal in the family housing information package (BMP 1-4)
3-5	Public Trash Receptacles	Facilities Maintenance	Track number of receptacles provided	Track number of receptacles provided	Track number of receptacles provided
3-6	Inspections for Trash and Debris	Facilities Maintenance	Inspect for and remove trash and debris from the campus grounds once a week	Inspect for and remove trash and debris from the campus grounds once a week	Inspect for and remove trash and debris from the campus grounds once a week
3-7	Grounds Maintenance Employee Training	Facilities Maintenance	Train employees by March 30, 2010 to identify illicit discharges	Train new employees within 3 months of being hired	Train new employees within 3 months of being hired

Table 4. Construction Site Storm Water Runoff Controls: BMPs, Measurable Goals and Schedule

BMP NO.	TITLE	RESPONSIBLE DEPARTMENT	YEAR 3 July 1, 2009 - June 30, 2010	YEAR 4 July 1, 2010 - June 30, 2011	YEAR 5 July 1, 2011 - June 30, 2012
4-1	NMSU Employee SWPPP Training	Facilities Planning and Construction	Train NMSU employees who review SWPPPs and inspect construction sites by March 30, 2010	Within 4 months of EPA issuing the new CGP, train employees in the in the new requirements Train new plan review and inspection employees within six months of being hired	Train new plan review and inspection employees within 6 months of being hired
4-2	SWPPP Review Checklist	Facilities Planning and Construction	Develop a SWPPP review checklist by December 31, 2009	Revise the SWPPP review checklist within 2 months of EPA issuing the new CGP	
4-3	SWPPP Inspection Report	Facilities Planning and Construction	Develop a SWPPP Inspection Report by March 30, 2010	Revise the SWPPP Inspection Report, if needed, within 2 months of EPA issuing the new CGP	
4-4	Tenant Construction Compliance	Office of Real Estate	Review leases and determine legal authority to enforce erosion, sediment and waste control requirements that are in the CGP	Within NMSU's legal authority, modify existing leases to require compliance with the Construction General Permit Ensure that new leases include the requirement to comply with the Construction General Permit	Ensure that new leases include the requirement to comply with the Construction General Permit
4-5	Tenant Construction Inspection	Office of Facilities and Services	Within NMSU's legal authority, develop procedures to inspect for tenant's compliance with the Construction General Permit	Track number of tenant construction inspections and types of enforcement actions	Track number of tenant construction inspections and types of enforcement actions

Table 5. Post-Construction Storm Water Management in New Development and Redevelopment: BMPs, Measurable Goals and Schedule

BMP NO.	TITLE	RESPONSIBLE DEPARTMENT	YEAR 3 July 1, 2009 - June 30, 2010	YEAR 4 July 1, 2010 - June 30, 2011	YEAR 5 July 1, 2011 - June 30, 2012
5-1	LEED Silver Standards for Capital Improvement Projects	Facilities Planning and Construction	Establish design policies for LEED Silver Certification of new capital improvement projects	Track percentage of capital improvement projects that receive LEED Silver Certification	Track percentage of capital improvement projects that receive LEED Silver Certification
5-2	Drainage Design Guidelines	Office of Facilities and Services		Develop written Drainage Design Guidelines that include water quality criteria	
5-3	Tenant Development Requirements	Office of Real Estate	Review leases and determine legal authority to enforce development requirements on tenants	Within NMSU's legal authority, modify existing leases to require compliance with the Drainage Design Guidelines Ensure that new leases include the requirement to comply with Drainage Design Guidelines	Ensure that new leases include the requirement to comply with Drainage Design Guidelines
5-4	Plan Review	Office of Facilities and Services		Review NMSU and tenant development plans (within legal authority) for compliance with Drainage Design Guidelines	Review NMSU and tenant development plans (within legal authority) for compliance with Drainage Design Guidelines
5-5	MS4 Inspection and Repair Program	Office of Facilities and Services	Inventory all non-natural drainage channels and structures	Add new infrastructure to the MS4 inventory as it is constructed Develop an inspection schedule for the MS4	Add new infrastructure to the MS4 inventory as it is constructed Track the amount of material cleaned from the MS4 and the number and types of repairs
5-6	LID Workshop	Office of Facilities and Services	Meet with the City of Las Cruces and Doña Ana County to determine level of interest in a regional LID Workshop	If interest exists, plan an LID Workshop	If interest exists, present an LID Workshop

Table 6. Pollution Prevention/Good Housekeeping for Municipal Operations: BMPs, Measurable Goals and Schedule

BMP NO.	TITLE	RESPONSIBLE DEPARTMENT	YEAR 3 July 1, 2009 - June 30, 2010	YEAR 4 July 1, 2010 - June 30, 2011	YEAR 5 July 1, 2011 - June 30, 2012
6-1	Good Housekeeping Procedures for Shops and Maintenance Facilities	Facilities Maintenance	Develop written procedures for each facility	Train the employees at each facility by September 30, 2010 Train new employees at each facility within 3 months of being hired	Train new employees at each facility within 3 months of being hired
6-2	Annual Storm Water Pollution Prevention Inspections	Environmental Health & Safety		Develop an inspection form by September 30, 2010 Track number of facilities inspected and percentage that needed corrective measures	Track number of facilities inspected and percentage that needed corrective measures
6-3	Integrated Pest Management (IPM) Program	Facilities Maintenance		Develop a written IPM program	
6-4	Street Sweeping	Facilities Maintenance	Sweep each major thorough-fare monthly Track the amount of material removed from the MS4 by street sweeping	Sweep each major thorough-fare monthly Track the amount of material removed from the MS4 by street sweeping	Sweep each major thorough-fare monthly Track the amount of material removed from the MS4 by street sweeping
6-5	Material Handling Procedures for MS4 Maintenance	Facilities Maintenance	Develop written procedures	Train the employees that perform maintenance by September 30, 2010 Train new maintenance employees within 3 months of being hired	Track amount of material disposed of and where it is disposed Train new maintenance employees within 3 months of being hired
6-6	Composting of Landscaping Waste	Facilities Maintenance	Track amount of material composted and amount of compost applied to open spaces	Track amount of material composted and amount of compost applied to open spaces	Track amount of material composted and amount of compost applied to open spaces
6-7	Feasibility Study of Controls for Animal Pens	Office of Facilities and Services		Complete the feasibility study	Prepare an implementation plan for any feasible controls

5.0 MONITORING AND ASSESSMENT

The MS4 General Permit requires NMSU to develop a Monitoring /Assessment Plan (MAP) that evaluates program compliance, the appropriateness of best management practices, and progress toward achieving the SWMP's measurable goals. No analytical monitoring is required, since NMSU does not discharge to waters on the CWA Section 303(d) list of impaired waters. NMSU will submit the MAP to the EPA with the annual report that is due October 1, 2009.

The MAP will seek to measure the improvement and/or protection of water quality that is resulting from implementation of the SWMP. Examples of measures that may be included in the MAP are:

- Quantity of material removed from the MS4;
- Number of illicit discharges found and eliminated;
- Number of construction sites in compliance with the CGP; and
- Number of new projects using LID principles to protect or improve water quality.

6.0 GENERAL PERMIT REQUIREMENTS

6.1 ANNUAL REPORT

MS4 General Permit requires NMSU to submit an annual report to the EPA by October 1st of each year. The report should cover all SWMP activities for the prior permit year of July 1st to June 30th. NMSU is also required to provide public notice and make available for public comment a draft of the Annual Report for at least thirty (30) days. All public input and any resulting changes to the SWMP must be addressed in the annual report before it is submitted to the EPA.

Refer to Part 5.8 of the MS4 General Permit for a discussion of items that must be included in the annual report. These items include, but are not limited to:

- A statement of NMSU's status of compliance with the MS4 General Permit;
- An assessment of the appropriateness of the BMPs that have been implemented;
- Review of the progress made toward reducing the discharge of pollutants to the Maximum Extent Practicable (MEP);
- An assessment of the success of the measurable goals for each of the MCMs;
- A summary of the collected and analyzed information, if any, used to track the success of the program;
- A summary of the storm water activities that NMSU is going to implement during the next reporting cycle, including a schedule;
- Proposed changes to the SWMP, BMPs or measurable goals;
- Description and schedule of any additional BMPs that may be necessary based on new information or applicable TMDLs;
- A notice of any agreements that NMSU has for another government entity to satisfy some of its permit obligations;
- A summary of any issues raised by the public on the Draft Annual Report;
- Proposed changes to the SWMP based on public comment; and
- A summary of NMSU's response to public comments.

The annual reports should be submitted to the EPA at the following address:

U.S. EPA, Region 6
Compliance Assurance and Enforcement Division
Water Enforcement Branch (6EN-WC)
1445 Ross Avenue
Dallas, TX 75202-2733

A copy of each annual report must also be submitted to:

Program Manager
Point Source Regulations Section
Surface Water Quality Bureau
New Mexico Environment Department
P.O. Box 26110
Santa Fe, NM 87502

6.2 REVIEWING AND UPDATING THE SWMP

The MS4 General Permit requires NMSU to annually review its SWMP in conjunction with preparation of the annual report. NMSU may add BMPs, components, controls, or requirements to the SWMP at any time upon written notification to the EPA, as long the changes do not replace anything in the SWMP and nothing is removed from the SWMP. If NMSU wishes to replace an ineffective or infeasible BMP with an alternate BMP, NMSU must submit a written request for the change to the EPA. Requests for changes must include:

- An analysis of why the BMP is ineffective or infeasible (including cost prohibitive);
- Expectations of the effectiveness of the replacement BMP; and
- An analysis of why the replacement BMP is expected to achieve the goals of the BMP being replaced.

Unless denied by the EPA, changes proposed according to the criteria above will be deemed approved and may be implemented sixty (60) days after submitting the request.

Refer to Part 5.5 of the MS4 General Permit for all requirements related to Reviewing and Updating SWMPs.

6.3 RECORDKEEPING

The MS4 General Permit requires NMSU to retain the following (as applicable) for at least three years from the date of the sample, measurement, report, or permit application, or for the remainder permit term, whichever is longer:

- Records of all data used to complete the NOI;
- All monitoring records, calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation;
- Copies of all reports required by the permit;
- Copies of Discharge Monitoring Reports (DMRs);
- A copy of the NPDES permit;

- Information and determinations used to document permit eligibility based on discharges being consistent with a TMDL;
- Information and determinations used to document permit eligibility based on the ESA; and
- Information and determinations used to document permit eligibility based on the NHPA.

The recordkeeping period may be extended by request of the EPA. Refer to Part 5.7 of the MS4 General Permit for all requirements related to Recordkeeping.

7.0 REFERENCES

Environmental Protection Agency (2002). "Las Cruces, NM Urbanized Area Storm Water Entities as Defined by the 2000 Census." August 27, 2002. Retrieved July 07, 2009 from http://www.epa.gov/npdes/pubs/va_nm_lascruces_rds.pdf.

Federal Register (1999). *National Pollutant Discharge Elimination System-Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges.* Vol. 64, No. 235. December 8, 1999.

Federal Register (2007). *Final NPDES General Permits for Small Municipal Separate Storm Sewer Systems (sMS4s) in New Mexico, Indian Country Lands in New Mexico and Indian Country Lands in Oklahoma; Minor Revisions and Corrections.* Vol. 72, No. 113. June 13, 2007.

National Park Service (2009). National Register of Historical Places. Retrieved July 03, 2009, from http://www.nr.nps.gov.

New Mexico Administrative Code (2007). *Water Quality Standards for Interstate and Intrastate Surface Waters.* As amended through August 1, 2007. (20.6.4 NMAC)

New Mexico State University (2007). "New Mexico State University Policy Manual." Ratified October 22, 2007. Retrieved 6/30/2009 from http://www.nmsu.edu/manual/documents/intro.pdf.

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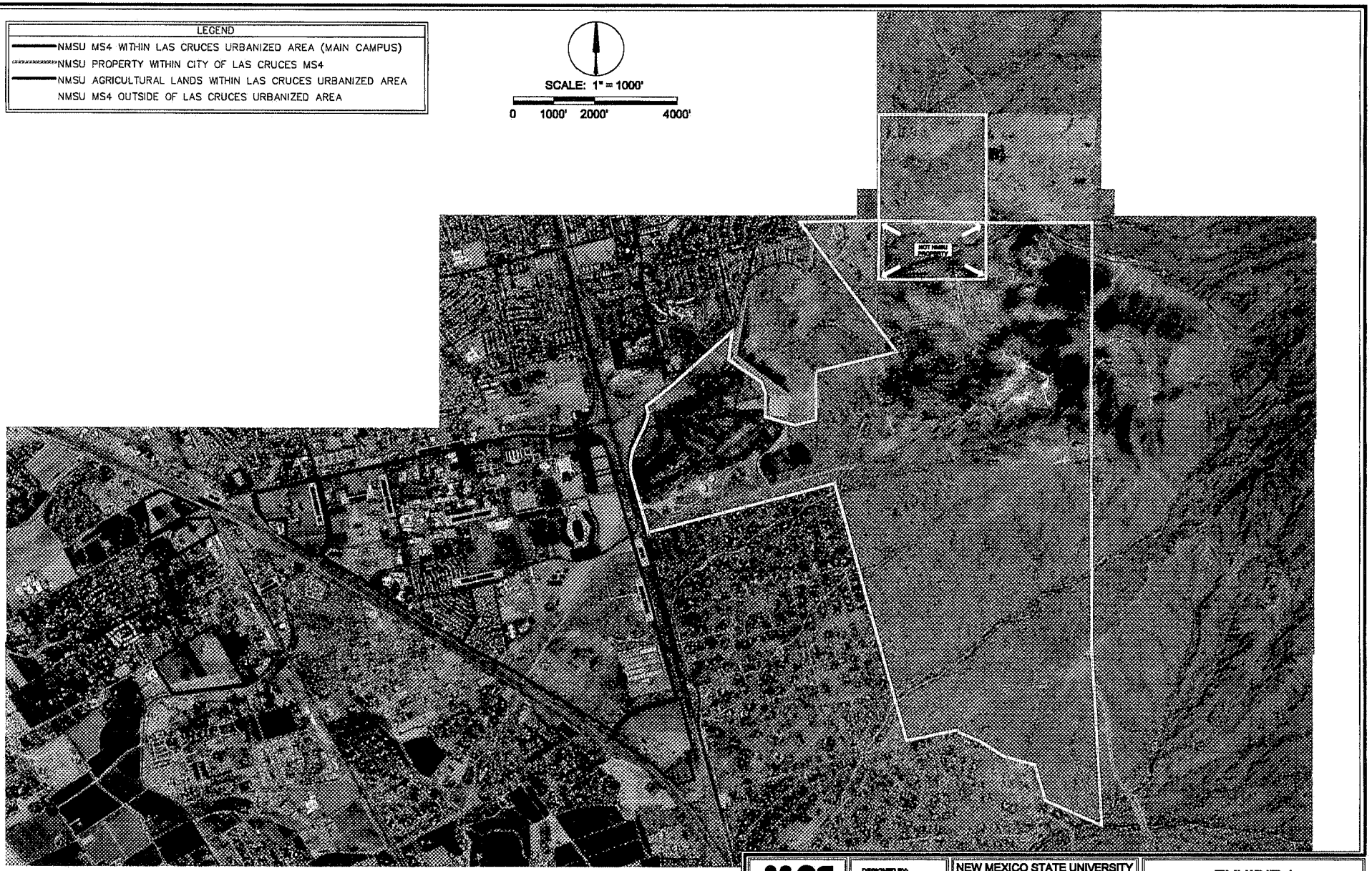
U.S. Fish & Wildlife Service, Southwestern Region Ecological Services (2009). Retrieved July 3 and 8, 2009, from http://www.fws.gov/southwest/es/EndangeredSpecies/lists/ListSpecies.cfm.

Insert copies of public notices, public comments and NMSU's responses to comments.



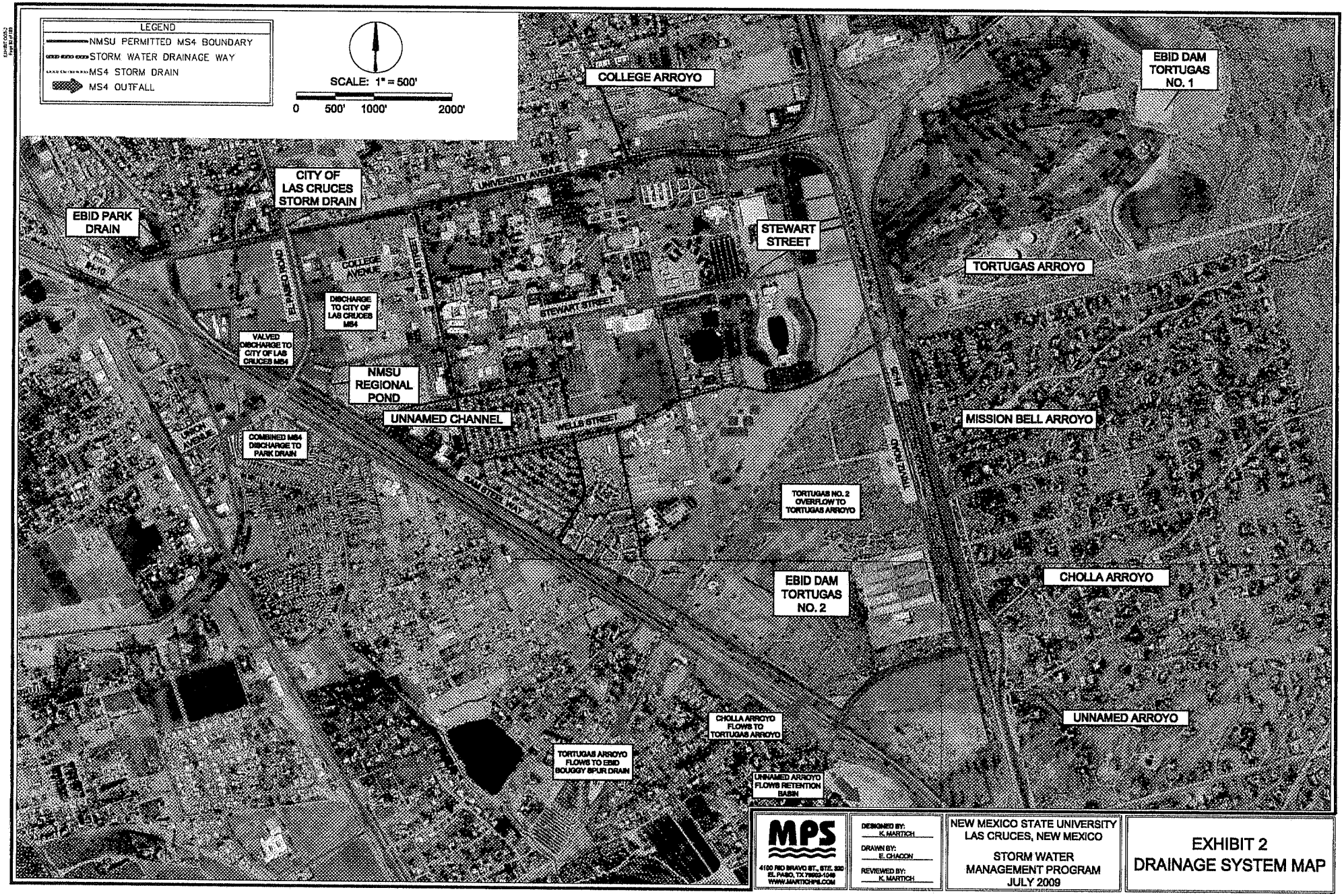
MPS
4100 RIO BRAVO ST., STE. 320
EL PASO, TX 79902-1049
WWW.MARTICHPE.COM

DESIGNED BY: K. MARTICH
DRAWN BY: E. CHACON
REVIEWED BY: K. MARTICH

NEW MEXICO STATE UNIVERSITY
LAS CRUCES, NEW MEXICO

STORM WATER MANAGEMENT PROGRAM
JULY 2009

EXHIBIT 1
LOCATION MAP AND MS4 BOUNDARIES



MPS
4100 RIO BRAVO ST., STE. 300
EL PASO, TX 79902-1049
WWW.MARTICHPE.COM

DESIGNED BY: K. MARTICH
DRAWN BY: E. CHACON
REVIEWED BY: K. MARTICH

NEW MEXICO STATE UNIVERSITY
LAS CRUCES, NEW MEXICO
STORM WATER MANAGEMENT PROGRAM
JULY 2009

EXHIBIT 2
DRAINAGE SYSTEM MAP

ENDANGERED SPECIES ACT ELIGIBILITY EVALUATION

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES

This evaluation is limited to the portion of New Mexico State University that is within the Las Cruces Urbanized Area of Doña Ana County (main campus). According to the website of the Southwest Region Ecological Services office of the U.S. Fish and Wildlife Service (USFWS, 2009), the species potentially present in Doña Ana County that are federally listed as endangered are:

- Least Tern (*Sterna antillarum*) - Bird;
- Northern Aplomado Falcon (*Falco femoralis septentrionalis*) - Bird;
- Rio Grande Silvery Minnow *(Hybognathus anarus)* - Fish;
- Sneed Pincushion Cactus (*Coryphantha sneedii var. sneedii*) - Plant; and
- Southwestern Willow Flycatcher (*Empidonax traillii* extimus) - Bird.

The website also lists the Mexican Spotted Owl (*Strix occidentalis lucida*) potentially present in Doña Ana County as a threatened bird species (USFWS, 2009).

The website lists two other bird species of concern, the Bald Eagle (*Haliaeetus leucocephalus)* and the Yellow-billed Cuckoo (*Coccyzus americanus*), that are potentially present in Doña Ana County. In 2007 the status of the Bald Eagle was changed from endangered to delisted-recovered. It is currently undergoing 5-years of monitoring, after which it is anticipated that the Bald Eagle will be removed from the list.

The Yellow-billed Cuckoo is listed as a candidate species. A candidate species is one for which the USFWS has sufficient information to support a proposal to list the species as Threatened or Endangered; however, the proposal is precluded by work on higher priority listings. Listing Priority Numbers range from 1 to 12, with 1 being highest priority based on the magnitude of threats, immediacy of threats, and taxonomic status. Species with a LPN of 1, 2 or 3 are considered high priority candidates. The LPN for the Yellow-billed Cuckoo is 3.

Since the Bald Eagle and the Yellow-billed Cuckoo are not currently listed as threatened or endangered, they do not have to be evaluated for New Mexico State University's MS4 permit application.

DESIGNATED CRITICAL HABITAT

According to the website of the USFWS Southwest Region Ecological Services office, no critical habitat rules have been published for the Least Tern, Northern Aplomado Falcon, and Sneed Pincushion Cactus (USFWS, 2009). Final Rules designating critical habitat have been published for the Mexican Spotted Owl (Federal Register, 2004), the Rio Grande Silvery Minnow (Federal Register, 2003), and Southwestern Willow Flycatcher (Federal Register, 2005). None of the designated critical habitats are within or near the portion of NMSU that is within the Las Cruces Urbanized Area.

ELIGIBILITY DETERMINATION

Interior Least Tern

Within New Mexico, the required habitat of the Interior Least Tern is the sandbars and beaches along the Rio Grande river system (IBWC, 2003). The Rio Grande does not flow through the portion of NMSU within the Las Cruces Urbanized Area; therefore, suitable habitat is not believed to be present.

Northern Aplomado Falcon

The required habitat for the Northern Aplomado Falcon is open terrain with scattered trees or shrubs. In New Mexico, the habitat is characterized by desert grasslands with scattered mesquite and yucca (USFWS, 1990). The western portion of the main campus is a developed, landscaped, urban area. The eastern portion, particularly the southeastern corner, contains undeveloped areas with sparse remnants of habitat that may have been suitable for the falcon; however, the area is highly disturbed by human activity.

The falcon population present in New Mexico is an Experimental Population, Non-Essential (USFWS, 2009). The population is being established through releases on private ranches, White Sands Missile Range, and lands owned by the U.S. Bureau of Land Management and the State of New Mexico (Zenone, 2008). As the birds disperse, it's highly unlikely the birds will find the campus attractive due to the human activity in the area and the small area of remnant vegetation.

Rio Grande Silvery Minnow

The Draft Revised Recovery Plan for the minnow states that the Rio Grande Silvery Minnow is only known to be present in the Middle Rio Grande down to the headwaters of Elephant Butte Lake (USFWS, 2007). In addition, there are no perennial waterways in the vicinity of the main campus; therefore, suitable habitat is not believed to be present.

Sneed Pincushion Cactus

The Sneed Pincushion Cactus grows in cracks on vertical ledges in limestone formations of the Chihuahuan desert at elevations of 3,900 – 7,700 feet (USFWS, 2009). The western portion of the main campus is a developed, landscaped, urban area. The eastern portion of the main campus is undeveloped. This eastern area is in the lower elevations that would be appropriate for the cactus; however, the Soil Survey of Doña Ana County indicates the soils are deep sand and gravelly sand on valley terraces, valley sides and alluvial fans (USDA, 2009). Suitable habitat is not believed to be present.

Southwestern Willow Flycatcher

The required habitat of the Southwestern Willow Flycatcher is dense riparian woodlands along lakes, rivers, streams and other wetlands (USFWS, 2009). There are no intermittent or perennial waterways or wetlands to support a riparian habitat within the main campus. The flycatcher is breeding in portions of Dona Ana County, but not within the Las Cruces Urbanized Area (Hira A. Walker, Ph.D., *pers. comm.*). Suitable habitat is not believed to be present.

CONCLUSION

The federally listed threatened or endangered species that are potentially present within Doña Ana County are not believed to occur in proximity to the New Mexico State University's MS4 or the MS4's points of discharge that lie within the Las Cruces Urbanized Area. Also, no critical habitat is in proximity to the MS4. Therefore, the portion of New Mexico State University that is within the Las Cruces Urbanized Area is eligible for general permit authorization of its MS4 discharges under Part 1.5.3.1 ESA Criterion A of the permit.

REFERENCES

Federal Register (2003). *Designation of Critical Habitat for the Rio Grande Silvery Minnow (Hybognathus amarus); Final Rule.* Vol. 68, No. 33. February 19, 2003.

Federal Register (2004). *Designation of Critical Habitat for the Mexican spotted owl (Strix occidentalis lucida); Final Rule.* Vol. 69, No. 168. August 31, 2004.

Federal Register (2005). *Designation of Critical Habitat for the Southwestern Willow Flycatcher (Empidonax traillii extimus); Final Rule.* Vol. 70, No. 201. October 19, 2005.

Federal Register (2007). *Removing the Bald Eagle in the Lower 48 States from the List of Endangered and Threatened Wildlife; Final Rule.* Vol. 72, No. 130. July 9, 2007.

International Boundary and Water Commission, United States Section (2003). *Draft Environmental Impact Statement: River Management Alternatives for the Rio Grande Canalization Project.* Prepared by Parsons, Austin, Texas. Retrieved January 15, 2009, from http://www.ibwc.state.gov/EMD/RGCP_DEIS/USIBWC_RGCP_DEIS.html

U.S. Department of Agriculture, Natural Resources Conservation Service (2009). Dona Ana County, New Mexico, Soil Maps Version 1, November 23, 2004 and Soil Data Version 8, December 9, 2008. Retrieved July 9, 2009 from http://websoilsurvey.nrcs.usda.gov/app/

U.S. Fish & Wildlife Service (2007). *Draft Revised Rio Grande Silvery Minnow (Hybognathus amarus) Recovery Plan.* January 2007. Retrieved on January 31, 2009 from http://ecos.fws.gov/docs/recovery_plan/070118a.pdf

U.S. Fish & Wildlife Service, Region 2 (1990). *Northern Aplomado Falcon Recovery Plan.* Approved June 6, 1990. Prepared by Dean P. Keddy Hector, Department of Biology, Southwest Texas State University, San Marcos, Texas. Retrieved on July 30, 2009 from http://ecos.fws.gov/docs/recovery_plan/900608.pdf

U.S. Fish & Wildlife Service, Southwestern Region Ecological Services (2009). Retrieved July 3 and 8, 2009 from http://www.fws.gov/southwest/es/EndangeredSpecies/lists/ListSpecies.cfm

Walker, Hira A., Ph.D. (2009). New Mexico Department of Game and Fish, Conservation Services Division, Non-game and Endangered Species. By e-mail, January 07, 2009.

Zenone, Patricia, Ph.D. (2008). *Northern Aplomado Falcon Reintroductions in New Mexico in 2008.* Electronic Fish and Wildlife Journal of the U.S. Fish and Wildlife Service. Southwest Region, September 8, 2008. Retrieved on July 30, 2009 from http://www.fws.gov/arsnew/regmap.cfm?arskey=24842.

NATIONAL HISTORIC PRESERVATION ACT ELIGIBILITY EVALUATION

FEDERALLY LISTED HISTORIC RESOURCES

The National Register of Historic Places contains five listed historic properties located within New Mexico State University's portion of the Las Cruces Urbanized Area (National Park Service, 2009). The properties are:

- Former Air Science Building, now the William Convoy Honors Center;
- Foster Hall;
- Goddard Hall;
- Former University President's House, now the Nason House; and
- Elephant Butte Irrigation District (EBID) structures.

According to Michelle Ensey, Archaeologist with the New Mexico Historic Preservation Division, the EBID listing is not of concern for the MS4 permit. EBID has a Memorandum of Agreement with the New Mexico Historic Preservation Division, and any potential effects on it are addressed through the EBID discharge permitting process (Ensey, 2008). None of the other listed properties are in the path of storm water discharges from the portion of New Mexico State University that is within the Las Cruces Urbanized Area.

TRIBAL CONSULTATION

On September 22, 2008 and again on November 20, 2008, Region 6 of the EPA sent a letter to Tribal authorities within the State of New Mexico and notified them of the NPDES General Permit NMR040000. EPA also provided the Tribes with a list of MS4 operators that may be seeking authorization under the permit. The Tribes were asked to comment on any properties with religious or cultural importance to the Tribe that might be affected by authorizing discharges under the permit. Denise Hamilton in the EPA Region 6 NPDES Permits and Technical Section indicates that these letters satisfy the Tribal consultation requirements under Section 106 of the NHPA (Hamilton, 2008).

CONCLUSION

Except for the EBID, the listed historic properties are not in the path of MS4 discharges from the portion of New Mexico State University within the Las Cruces Urbanized Area. Although the EBID receives MS4 discharges, the EBID ensures through its permitting process that the discharges do not negatively affect its structures. None of the Best Management Practices in the Storm Water Management Program (SWMP) prepared for the MS4 permit will be constructed on, adjacent to or near the listed historic properties. Therefore, the portion of New Mexico State University within the Las Cruces Urbanized Area is eligible for general permit authorization of its MS4 discharges under Part 1.6.1.1 NHPA Criterion A of the permit.

REFERENCES

National Park Service (2009). National Registry Information retrieved July 03, 2009, from http://www.nr.nps.gov

Ensey, Michelle (2008). Archaeologist, New Mexico Historic Preservation Division, Department of Cultural Affairs. By phone, December 09, 2008.

Hamilton, Denise (2008). Environmental Protection Agency Region 6, Water Quality Protection Division. By phone, November 19, 2008.

MARTICH PROFESSIONAL SERVICES, PLLC

July 9, 2009

Ms. Michelle Ensey, Archaeologist
Department of Cultural Affairs
Historic Preservation Division
Bataan Memorial Building
407 Galisteo Street, Suite 326
Santa Fe, NM 87501

RE: New Mexico State University's Application for Coverage under NPDES General Permit No. NMR040000 for Discharges from Small Municipal Separate Storm Sewer Systems (MS4)

Dear Ms. Ensey:

New Mexico State University (NMSU) is preparing a Notice of Intent to obtain authorization of its storm water discharges under the subject permit. NMSU contracted with Martich Professional Services to assist in preparation of the permit documents.

In accordance with Part 1.6 of the permit, NMSU evaluated its discharges for permit eligibility with regards to the National Historic Preservation Act. The enclosed table (Exhibit 1) summarizes the National Registry properties within NMSU's portion of the Las Cruces Urbanized Area. Exhibit 2 shows the location of the listed properties in relation to the MS4 and the receiving waters for its discharge points.

Except for the Elephant Butte Irrigation District (EBID), the listed historic properties are not in the path of NMSU's storm water discharges and allowable non-storm water discharges. In addition, no construction activities are planned to control storm water discharges near the listed properties. The EBID permit process will be used for any future drainage project that may impact their system. Therefore, NMSU has determined that its storm water discharges within the Las Cruces Urbanized Area are eligible for the subject permit under NHPA Criterion A in Part 1.6.1.1 of the permit. I am submitting this evaluation for your review of NMSU's determination.

Ms. Denise Hamilton of the EPA Region 6 has stated that her letters dated September 22, 2008 and November 20, 2008 satisfy the permit's requirement for Tribal consultation and that no further action is needed by NMSU. Copies of these letters are enclosed for your review.

If you have any questions or require additional information, please contact me at (915) 433-9254 or by e-mail at kmartich@martichps.com.

Respectfully Submitted,

Katrina M. Martich

Katrina M. Martich, P.E.
President

Enclosures:
Exhibit 1 Properties on the National Registry within NMSU
Exhibit 2 Location Map of National Registry Properties
USEPA Region 6 Letters dated September 22, 2008 and November 20, 2008

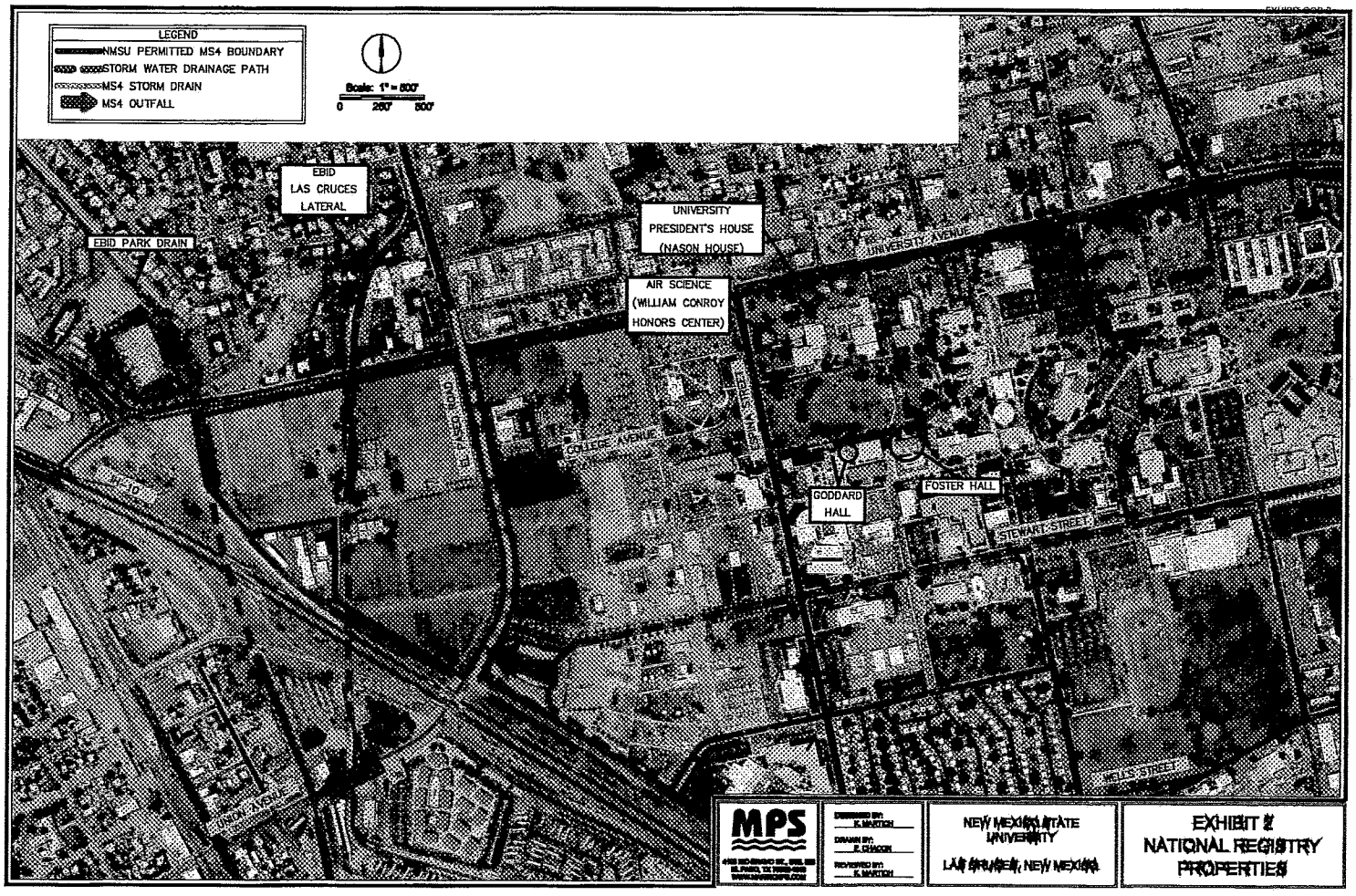
c: David Bollschweiler
Office of Facilities and Services
New Mexico State University
P.O. Box 30001 MSC 3545
Las Cruces, NM 88003

EXHIBIT 1. PROPERTIES ON THE NATIONAL REGISTRY WITHIN NEW MEXICO STATE UNIVERSITY

NATIONAL REGISTRY INFORMATION SYSTEM LISTED RESOURCES WITHIN THE LAS CRUCES URBANIZED AREA OF NEW MEXICO STATE UNIVERSITY				
State	**County**	**Resource Name**	**Address**	**Notes**
NM	Dona Ana	Air Science	NE Corner of N. Horseshoe and Espina St.	William Conroy Honors Center
NM	Dona Ana	Foster Hall	SE Corner of S. Horseshoe and Sweet	
NM	Dona Ana	Goddard Hall	S. Horseshoe between Espina and Sweet St.	
NM	Dona Ana	University President's House	South of University Ave. between Espina and Solano	Nason House
NM	Dona Ana	Elephant Butte Irrigation District	Roughly along US 85, between jct. of US 85 and NM 90, and El Paso City Limits	Park Drain, Las Cruces Lateral, and Tortugas No. 2

Source: 07/03/09 search and download from http://www.nr.nps.gov/

*The downloaded data included all listed properties in Doña Ana County. The list was then reduced to the properties within the portion of New Mexico State University that is within the Las Cruces Urbanized Area.


LEGEND
NMSU PERMITTED MS4 BOUNDARY
STORM WATER DRAINAGE PATH
MS4 STORM DRAIN
MS4 OUTFALL
Scale: 1" = 500'
0 250' 500'
EBID
LAS CRUCES
LATERAL
EBID PARK DRAIN
UNIVERSITY
PRESIDENT'S HOUSE
(NASON HOUSE)
AIR SCIENCE
(WILLIAM CONROY
HONORS CENTER)
UNIVERSITY AVENUE
COLLEGE AVENUE
GODDARD
HALL
FOSTER HALL
STEWART STREET
MILLS STREET
UNION AVENUE
MPS
NEW MEXICO STATE
UNIVERSITY
LAS CRUCES, NEW MEXICO
EXHIBIT 2
NATIONAL REGISTRY
PROPERTIES

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

SEP 22 2008

Governor Chandler Sanchez
Pueblo of Acoma
P.O. Box 309
Acoma, New Mexico 87034

Dear Governor Sanchez:

Through this letter EPA is clarifying the process for providing information to fulfill requirements with the National Historic Preservation Act (NHPA), Section 106. EPA is in the process of authorizing discharges of small Municipal Storm Sewer Systems (sMS4s) in New Mexico through our May 2007, general permit. EPA has an obligation to consider the effects of this undertaking on historic properties. We request your input during the formal comment period should the Tribe be aware of properties with religious or cultural importance that are affected by this undertaking.

A copy of the EPA sMS4 general permit is available at http://epa.gov//region6/water/npdes/sw/sms4/index.htm. In accordance with general permit requirements, MS4 operators within specified urbanized areas (UAs) must apply to EPA for permit coverage by filing a Notice of Intent (NOI). The UAs, defined by 2000 Census data, include Farmington, Santa Fe, Albuquerque, Las Cruces, El Paso and many of their surrounding communities. Maps of the UAs are available on the general permit website. It should be noted that municipal stormwater from within the City of Albuquerque is addressed by a separate individual permit, while MS4s outside the city limits who meet population density levels apply under this general permit.

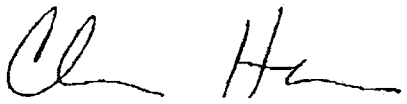
Contrary to most general permits, the sMS4 general permit does not grant automatic coverage upon filing an NOI. The sMS4 permit requires that EPA authorize by letter each NOI only after in-house review and completion of a 30-day public comment opportunity. Review and comment on individual NOIs may be made online at http://epa.gov//region6/water/npdes/sw/sms4/index.htm or directly via mail to EPA. Currently, several NOI comment periods are complete, a few remain open, and several are anticipated in the future; continuing until all applications for discharge of municipal stormwater in New Mexico are processed.

Tribal input regarding cultural or historic properties that might be affected by EPA authorization of any sMS4 discharge is requested during the public comment period. EPA utilizes a New Mexico Tribal Mailing List to inform interested parties, including the Tribes, of public comment opportunities on NPDES permits. Please contact EPA immediately if the Tribe has not been receiving notification from us regarding online availability of NOIs. If, for any NOI whose comment period has closed, you have

remarks for our consideration, we request you forward those comments to EPA within thirty days of receipt of this letter. For NOIs with public comment periods currently open and for future NOIs, you should provide any comments, including those regarding historic and cultural properties, during the comment period.

EPA acknowledges the government-to-government relationship we share with federally recognized tribes. We look forward to hearing from you. Any comments, including input the Tribe might have regarding the effects on historic properties of discharges addressed in an NOI, should be submitted to: Diane Smith, USEPA, Region 6, Water Quality Protection Division (6WQ-NP), 1445 Ross Ave., Suite 1200, Dallas, TX, 75202. Additionally, you may contact Denise Hamilton of the NPDES Permits and Technical Section via telephone at (214) 665-2775 or email at hamilton.denise@epa.gov, if you have questions.

Sincerely,



Claudia V. Hosch.
Associate Director
NPDES Permits and TMDLs Branch

cc: (orig w/ Tribal Mailing List)
Michelle Ensey, NMSHPO
Tribal Mailing List

List of addressees to be merged - Create 36 letters per individual

Office_Address_List 9/5/2008

Title	First Name	Last Name	Company Name
Governor	Chandler	Sanchez	Pueblo of Acoma
Governor	Joseph Ernest	Suina	Pueblo of Cochiti
Governor	Robert	Benavides	Pueblo of Isleta
Governor	Paul	Chinana	Pueblo of Jemez
Governor	John	Antonio, Sr	Pueblo of Laguna
Governor	Ernest	Mirabal	Pueblo of Nambe
Governor	Earl	Salazar	Ohkay Owingeh
Governor	Craig	Quanchello	Pueblo of Picuris
Governor	George	Rivera	Pueblo of Pojoaque
Governor	Stuart	Paisano	Pueblo of Sandia
Governor	Ulysses	Leon	Pueblo of Santa Ana
Governor	J. Michael	Chavarria	Pueblo of Santa Clara
Governor	Ronald L	Tenorio	Pueblo of San Felipe
Governor	Leon T	Roybal	Pueblo of San Ildefonso
Governor	Sisto	Quintana	Pueblo of Santo Domingo
Governor	Paul T.	Martinez	Pueblo of Taos
Governor	Robert	Mora	Pueblo of Tesuque
Governor	Ivan	Pino	Pueblo of Zia
Governor	Norman	Cooeyate	Pueblo of Zuni
Chairman	Joe	Garcia	All Indian Pueblo Council
President	Levi	Pesata	Jicarilla Apache Nation
Executive Director	James Roger	Madalena	Five Sandoval Indian Pueblos
President	Dr. Carleton	Naiche-Palmer	Mescalero Apache Tribe
Interim Executive Director	Valarie	Lyon	Eight Northern Indian Pueblos Council
President	Joe	Shirley, Jr.	Navajo Nation
Speaker of the House	Lawrence	Morgan	Navajo Nation Council
Chairman	Benjamin	Nuvamsa	Hopi Tribal Council
Chairperson	Wendsler	Noise, Sr	San Carlos Tribal Council
Chairman	Ronnie	Lupe	White Mountain Apache Tribal Council
Chairman	Clement J.	Frost	Southern Ute Tribe
Chairman	Ernest	House, Sr	Ute Mountain Ute Tribe
Chairman	Alonzo	Chalepah	Apache Tribe of Oklahoma
Chairman	Wallace	Coffey	Comanche Nation
Chairman	Jeff	Houser	Fort Sill Apache Tribe of Oklahoma
Chairman	Don	Tofpi	Kiowa Tribe of Oklahoma
President	George	Howell	Pawnee Tribal Business Council
President	Gary	McAdams	Wichita & Affiliated Tribes
Governor	Frank	Piaz	Ysleta del Sur Pueblo

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

November 20, 2008

Governor Chandler Sanchez
Pueblo of Acoma
P.O. Box 309
Acoma, New Mexico 87034

Dear Governor Sanchez:

On September 22, 2008, EPA, Region 6, mailed a letter to inform the Tribe of municipal storm water Notices of Intent (NOIs) now and recently at public notice. That letter meant to clarify the process for information to be provided to fulfill requirements with National Historic Preservation Act (NHPA), Section 106, regarding EPA's Small Municipal Storm Sewer System (sMS4) general permit. Your input was requested regarding properties with religious or cultural importance to the Tribe that might be affected by this undertaking.

It has come to our attention that not all of the NOIs were accessible for review. Due to the inability for interested parties to review all NOIs, we are allowing additional time for review and comment. The EPA sMS4 general permit and copies of each NOI received to date by EPA are now available at http://epa.gov//region6/water/npdes/sw/sms4/index.htm.

Tribal input is again requested, regarding cultural or historic properties potentially affected by EPA authorization of any sMS4 discharge. For those NOIs with closed public comment periods, please forward any comments to EPA within 14 days of receipt of this letter. Please note that your input regarding potential impacts to cultural or historic properties from NOIs at public notice now or in the future should be submitted during each comment period.

Comments the Tribe might have regarding the effects on historic properties of discharges addressed in an NOI should be submitted to: Diane Smith, USEPA, Region 6, Water Quality Protection Division (6WQ-NP), 1445 Ross Ave., Suite 1200, Dallas, TX, 75202. Additionally, you may contact Denise Hamilton of the NPDES Permits and Technical Section via telephone at (214) 665-2775 or email at hamilton.denise@epa.gov, if you have questions.

Sincerely,

for Claudia V. Hosch
Associate Director
NPDES Permits and TMDLs Branch

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed by:

JL M. Taylor

7-31-09

Jennifer Taylor, Senior Vice-President
Business, Finance and Human Resources
New Mexico State University

Date

By: Angela Throneberry, Associate Vice President, Business, Finance & Human Resources

8.7 Environmental Assessment, Interstate 10/Interstate 25, Interchange Improvements (FOR REFERENCE INFORMATION ONLY)

ENVIRONMENTAL ASSESSMENT

Interstate 10 / Interstate 25 Interchange Improvements

Las Cruces, Doña Ana County, New Mexico

Project No. HPP-010-2(127)144
Control No. 1100030

Prepared for

New Mexico Department of Transportation

In Cooperation with

Federal Highway Administration

Prepared by

Parametrix
Molzen-Corbin & Associates

INTERSTATE 10 CORRIDOR
STUDY TEAM

May 2009

ENVIRONMENTAL ASSESSMENT

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ENVIRONMENTAL ASSESSMENT

Interstate 10 / Interstate 25 Interchange Improvements
Las Cruces, Doña Ana County, New Mexico

Project Number: HPP-010-2(127)144 Control Number: 1100030

Prepared for
New Mexico Department of Transportation (NMDOT)
Federal Highway Administration (FHWA)

This environmental assessment has been developed under the direction of Jerry Paz with Molzen-Corbin and Associates and prepared by Parametrix.

Sherri Hollifield — NMDOT Project Development Engineer — Date: 2/12/09

[signature] — NMDOT Environmental Program Manager — Date: 2/27/09

Frank Lozano Jr. — Federal Highway Administration — Date: 3/23/09

The following persons may be contacted for more information concerning this document:

Steve Reed, NMDOT
Environmental Program Manager
PO Box 1149
Santa Fe, NM 87504
(505) 827-5254

Frank Lozano, FHWA
Field Operations Engineer
604 W. San Mateo Road
Santa Fe, NM 87505
(505) 820-2031

Curt Frischkorn, NMDOT
Environmental Specialist
PO Box 1149
Santa Fe, NM 87504
(505) 827-5156

Sherri Holliefield, NMDOT
Project Development Engineer
750 N. Solano Drive
Las Cruces, NM 88001
(575) 525-7351

EXECUTIVE SUMMARY

This environmental assessment (EA) has been prepared on behalf of the New Mexico Department of Transportation (NMDOT), in cooperation with the Federal Highway Administration (FHWA), to evaluate potential impacts associated with improvements proposed to the Interstate 10/Interstate 25 (I-10/I-25) Interchange in Las Cruces, Doña Ana County, New Mexico. The environmental process has been completed in compliance with the National Environmental Policy Act of 1969 (NEPA), the *NMDOT Location Study Procedures* (NMDOT, 2000), and other applicable guidelines and regulations.

The limits of construction for the I-10/I-25 Interchange Improvements are milepost (MP) 143.3 to MP 146, along I-10. However, the area of environmental consideration expands west to MP 142, to ensure consideration of foreseeable transportation improvements in the area. The purpose and need for the I-10/I-25 Interchange Improvements were defined to correct physical deficiencies, enhance safety, relieve traffic congestion, address traffic flow, improve access, and accommodate economic development. Public and agency outreach has been extensive and consistent with a Context Sensitive approach to project development. The Recommended Build Alternative was selected following evaluation of transportation alternatives and consideration of agency and public input, resulting in the following components:

- realigning the I-25 southbound (SB) to I-10 westbound (WB) direct-connector ramp;
- realigning the I-10 eastbound (EB) to I-25 northbound (NB) direct-connector ramp;
- modifying existing alignments of I-10 main lanes, I-25 main lanes, Stern Drive, and Las Alturas Drive to accommodate alterations of the direct-connector ramps;
- replacing two parallel I-10 bridges carrying I-10 EB and I-10 WB traffic over I-25 SB;
- reconstructing concrete pavement along I-10 main lanes from MP 143.3 to MP 146; and
- improving drainage facilities within the I-10/I-25 Interchange complex.

The proposed improvements to the I-10/I-25 Interchange are included in the NMDOT *State Transportation Improvement Program* (STIP) for the fiscal years 2008 to 2011. The fiscal year 2009 program funds identified for the project include $12,563,582 provided by the 2009 American Recovery and Reinvestment Act (ARRA). The total project cost is estimated at $31,149,300, resulting in a funding deficit; therefore, the project may require phasing for construction. The proposed phases, in order of priority, would be: 1) direct-connector ramps, 2) bridge replacement, and 3) pavement reconstruction. The priority ranking was determined based on safety concerns at the direct-connector ramps and load-bearing limitations for two parallel bridges. Drainage improvements will be incorporated into the most appropriate phase(s). The I-10/I-25 Interchange Improvement Project was initially evaluated under the *I-10 Corridor Study* (AC-GRIP-010-2(108)144 CN:G18A1) which included provisions to improve I-10 from Las Cruces to the Texas state line.

Potential impacts of the Recommended Build Alternative and the No-Build Alternative have been evaluated in the EA for a wide range of social, economic, and environmental factors. Mitigation measures have been identified to minimize anticipated adverse impacts of the Recommended Build Alternative and are summarized in the EA. In addition, improvements at

the I-10/I-25 Interchange will require approval, by the FHWA, of an Interstate Justification Report (IJR).

This EA concludes that the Recommended Build Alternative meets the purpose and need identified for the I-10/I-25 Interchange Improvements. The proposed improvements are not anticipated to cause significant adverse social, economic, or environmental impacts at a level that would warrant an environmental impact statement (EIS). Therefore, unless significant impacts are identified during the public review of this EA, a finding of no significant impact (FONSI) for the Recommended Build Alternative will be requested from the FHWA. If a FONSI is issued, it would provide environmental authorization for final design, right-of-way acquisition, and construction.

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1.0 INTRODUCTION

This environmental assessment (EA) has been prepared on behalf of the New Mexico Department of Transportation (NMDOT), in cooperation with the Federal Highway Administration (FHWA), to evaluate potential impacts associated with improvements proposed to the Interstate 10/Interstate 25 (I-10/I-25) Interchange in Las Cruces, Doña Ana County, New Mexico. This EA has been completed in compliance with the National Environmental Policy Act of 1969 (NEPA), which requires that all federally-funded projects adopt a systematic and interdisciplinary approach throughout the decision-making processes. Important components of the NEPA framework include development and consideration of alternatives, the analysis of potential environmental impacts, and solicitation of public input. This EA has also been conducted in accordance with policies and procedures outlined in the NMDOT *Location Study Procedures* (NMDOT, 2000), and other applicable guidelines and regulations.

Prior to construction, improvements at the I-10/I-25 Interchange would require approval, by the FHWA, of an Interstate Justification Report (IJR). A summary of the information included in this EA will be incorporated into the IJR.

1.1 BACKGROUND

Initially, the I-10/I-25 Interchange Improvement Project was studied under the *I-10 Corridor Study* (AC-GRIP-010-2(108)144 CN:G18A1), which extended from the I-10/NM 478 Interchange (South Main Street) in Las Cruces (MP 142) to the NM/Texas state line at MP 164.2. The results of earlier studies are presented in the *Phase A Initial Evaluation of Alternatives; Interstate-10: Las Cruces to Texas State Line* (Molzen-Corbin & Associates, 2006) and *Phase B Detailed Evaluation of Alternatives; Interstate-10: Las Cruces to Texas State Line* (Molzen-Corbin & Associates, 2007), which are referred to as the *Phase A Report* and *Phase B Report*. In addition to the proposed improvements at the I-10/I-25 Interchange, the *I-10 Corridor Study* included proposed improvements to the I-10/NM 404 Interchange, the I-10/NM 227 Interchange, and the I-10/NM 228 Interchange. These proposed improvements will be evaluated under separate environmental documentation. Discussion and results presented in this EA will directly relate to those improvements proposed for the I-10/I-25 Interchange, only.

The proposed improvements to the I-10/I-25 Interchange are included in the NMDOT *State Transportation Improvement Program* (STIP) for the fiscal years 2008 to 2011. The fiscal year 2009 program funds identified for the project include $12,563,582 provided by the 2009 American Recovery and Reinvestment Act (ARRA). The total project cost is estimated at $31,149,300, resulting in a funding deficit; therefore, the project may require phasing for construction. The proposed phases, in order of priority, would be: 1) direct-connector ramps, 2) bridge replacement, and 3) pavement reconstruction. The priority ranking was determined based on safety conditions at the ramps and load-bearing limitations for the bridges. Drainage improvements will be incorporated into the most appropriate phase(s).

The proposed improvements are also included in the Las Cruces Metropolitan Planning Organization (MPO) *Transportation Improvement Program* (TIP) for FY 2008 to 2013.

1.2 LOCATION

I-10 is the southernmost, east-west highway in the United States (U.S.). In NM, I-10 begins at the Arizona state line and continues through southern NM to the Texas state line (Figure 1). The I-10/I-25 Interchange is the southern terminus for I-25, which travels north through NM into Colorado. The anticipated limits of construction for the I-10/I-25 Interchange Improvements are milepost (MP) 143.3 to MP 146, along I-10. The area of environmental consideration expands to the I-10/NM 478 Interchange (South Main Street) at MP 142 to ensure that the EA addresses environmental matters on a broad scale and does not restrict consideration of alternatives for other foreseeable transportation improvements in the area (Figure 2).

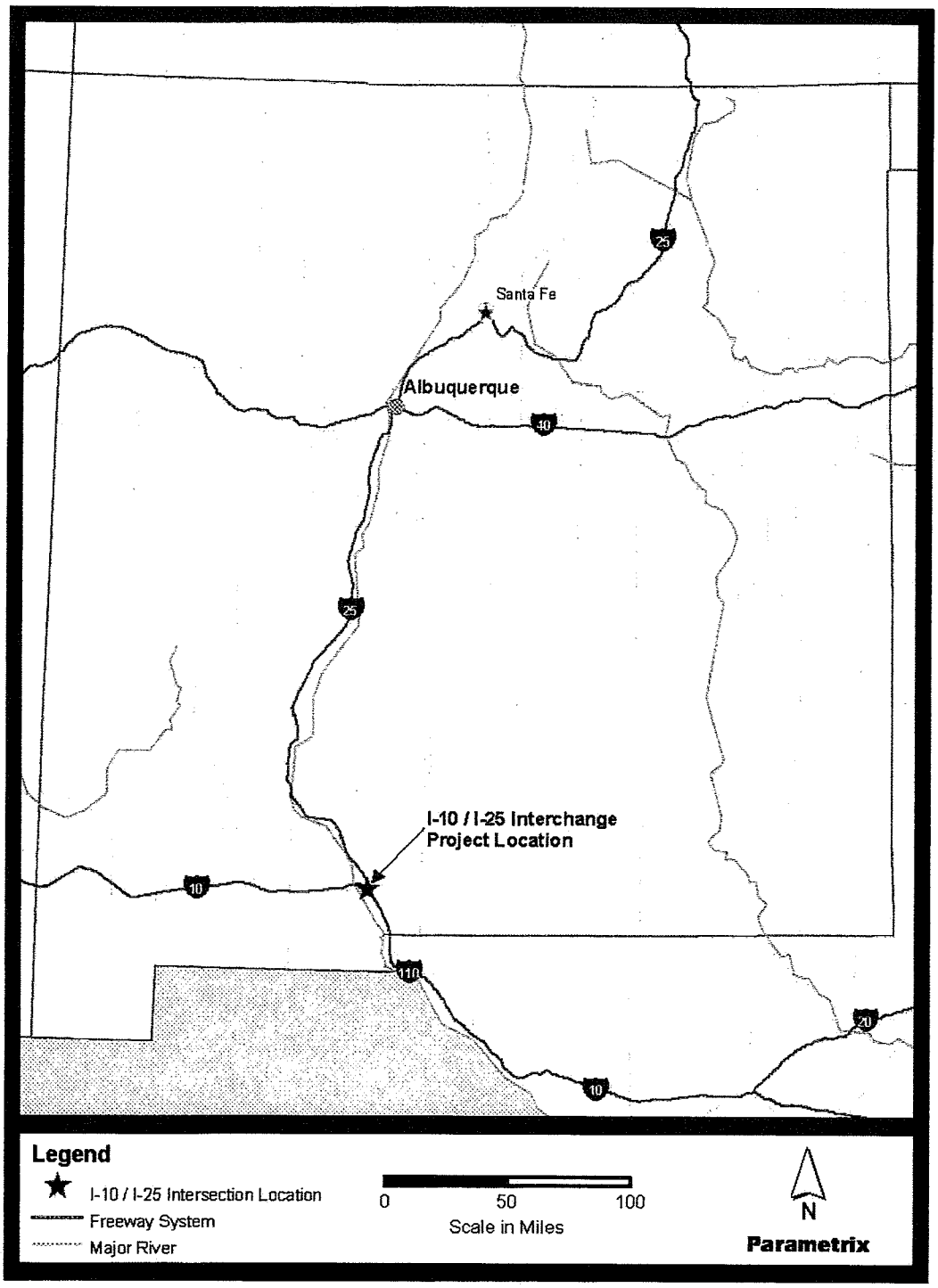

Figure 1: Location Map

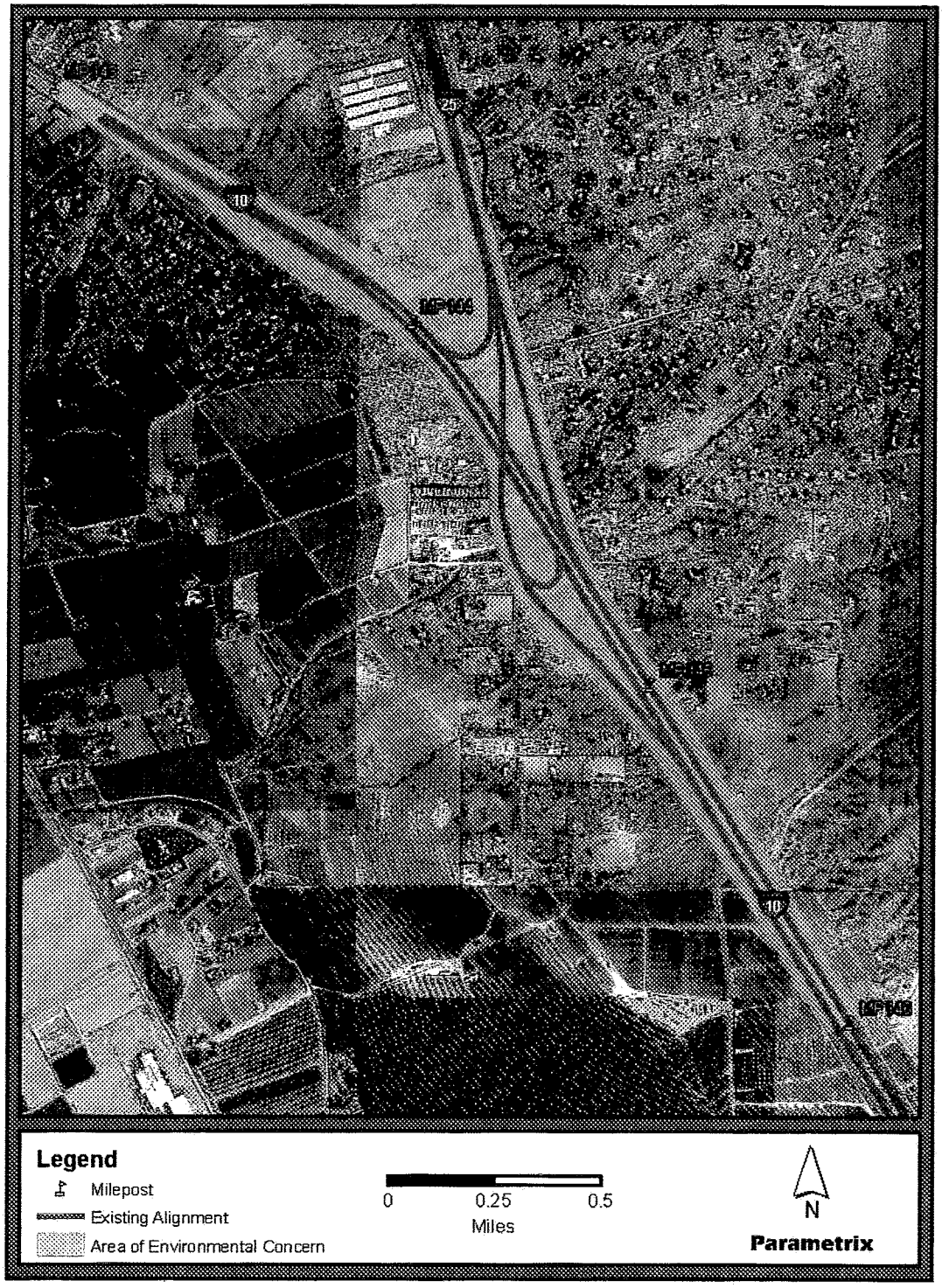

Figure 2: Project Area Map

2.0 PROJECT PURPOSE AND NEED

2.1 PROJECT PURPOSE AND NEED

The purpose and need for the I-10/I-25 Interchange Improvements was defined in the initial stages of project development to correct physical deficiencies, enhance safety, relieve traffic congestion, address traffic flow, improve access, and accommodate economic development. The I-10/I-25 Interchange Improvements are also needed within the framework of future transportation plans for adjacent areas, and to enhance system connectivity across southern NM.

2.2 EXISTING CONDITIONS AND PHYSICAL DEFICIENCIES

The I-10/I-25 Interchange complex exhibits deficient vertical and horizontal geometry, structural weaknesses for some bridges, inadequate drainage, and safety concerns for traffic entering/exiting the interstate from the interchange ramps.

2.2.1 Direct-Connector Ramps at I-10/I-25 Interchange

The I-10/I-25 Interchange is located between MP 143 and MP 146 along I-10, and comprises a grade-separated ramp complex following a trumpet design. Deficiencies at the interchange include horizontal curvature limitations at the I-10 EB to I-25 NB direct-connector ramp and the I-25 SB to I-10 WB direct-connector ramp, both of which are single-lane facilities. The I-10 EB to I-25 NB direct-connector is a spiral-loop ramp that transitions from I-10 EB with a tight right-hand curve to the north. It then passes underneath the I-10 EB and I-10 WB lanes, and ties in to I-25 NB on the left side. The I-10 WB to I-25 NB direct-connector is a two-lane section that transitions without severe curvature or grade changes.

2.2.2 Bridge Structures

Six (6) structures are currently located within the I-10/I-25 Interchange complex. Two (2) of the structures are parallel bridges that carry I-10 EB and I-10 WB main line traffic over I-25 ramps. These two (2) parallel bridges currently exhibit load-bearing limitations and exhibit structural deficiencies. The remaining four bridges provide underpasses for Cholla Road as it crosses with the I-10 or I-25 main lanes. All bridges were originally constructed in 1968.

2.2.3 Frontage Roads

Stern Drive (FR 1035) is a two-lane, paved road that extends along the western side of the entire length of the I-10/I-25 Interchange complex. Las Alturas Drive (FR 1036) is the eastern frontage road within the I-10/I-25 Interchange complex. It is a two-lane, paved road that extends from the I-25/University Avenue Interchange to approximately 0.5 miles south of the I-10/NM 227 Interchange. Most traffic uses Las Alturas Drive to access the semi-urban neighborhoods east of the I-10/I-25 Interchange. The frontage roads are generally parallel to the adjacent I-10 main line, typically with posted speeds of 35 mph.

2.2.4 Drainage

Storm-water runoff is conveyed under the I-10/I-25 Interchange by five existing drainage structures. The modification of existing structures would be required to accommodate roadway improvements.

2.2.5 Pavement

Several areas in the I-10/I-25 Interchange complex exhibit concrete pavement with large cracks and poor conditions. These conditions may be attributed to sub-grade failures, which cannot be corrected by applying a bituminous overlay.

2.3 TRAVEL DEMAND AND CONGESTION

In 2004, the Average Daily Traffic (ADT) for the I-10/I-25 Interchange complex was recorded as 22,837 vehicles per day. Twenty-nine percent was estimated to be heavy commercial traffic. Additional details on traffic demand are located in the *Transportation Needs Analysis Report* (HDR, 2006), however, the traffic analysis did not identify any capacity failures at the I-10/I-25 Interchange.

2.4 SAFETY

During the three-year period, from 2002 to 2004, accidents recorded within the I-10/I-25 Interchange complex included a total of 34 accidents, with no fatalities. Six (6) of these accidents were turn-overs and five (5) were alcohol-related. I-10, west of the I-10/I-25 Interchange, has been designated as a 'Safety Corridor,' with a posted speed limit of 70 mph.

2.5 SYSTEM CONNECTIVITY

The I-10/I-25 Interchange is an important regional connection point. Integrated and continuous levels of access and connectivity are needed to enhance traffic flow through the local and regional transportation network. Consideration of potential alternatives for foreseeable transportation improvements adjacent to the project area is critical, so as not to preclude opportunities for future projects.

2.6 ECONOMIC DEVELOPMENT

Over the ten-year period between 1990 and 2000, the U.S. census data indicate that Doña Ana County has experienced a 28.9% increase in total population. Much of the growth is dependent on the transportation of goods and services that utilize the I-10/I-25 Interchange as a means of travel between Las Cruces, El Paso, and Juarez, Mexico, supporting economic development in the US/Mexico border region.

3.0 ALTERNATIVES CONSIDERED

The *Phase A Report* (Molzen-Corbin & Associates, 2006) contained a comprehensive description of all feasible alternatives and identified the most promising options based on a broad examination of engineering and environmental issues. The *Phase B Report* (Molzen-Corbin & Associates, 2007) further defined engineering parameters and reviewed potential environmental impacts for the most promising options before identifying the Recommended Build Alternative for the project. Public and agency stakeholder input, consistent with a Context Sensitive approach, was a key element throughout the process of evaluating and refining project alternatives.

3.1 RECOMMENDED BUILD ALTERNATIVE

The Recommended Build-Alternative for the I-10/I-25 Interchange Improvements proposes modifications to both the vertical and horizontal alignment of direct-connector ramps improving the geometry and increasing safety throughout the complex. Additional components are also proposed to accommodate ramp improvements, structural weaknesses, and to address drainage issues (Figure 3). Typical sections for the proposed improvements are included in Appendix A.

3.1.1 Direct-Connector Ramps at the I-10/I-25 Interchange

Southbound I-25 to Westbound I-10 (Ramp B). The Recommended Build Alternative for the I-10/I-25 Interchange would realign the direct-connector ramp linking I-25 SB to I-10 WB by locating it northwards in a vacant area currently bound by I-10, I-25 and Cholla Road. The new I-25 SB to I-10 WB direct-connector ramp would depart on the right-hand side of I-25 and enter on the right-hand side of the two-lane I-10 WB lane. It would consist of one 14-ft driving lane, with a 4-ft inside shoulder, a 10-ft outside shoulder, and 8.5-ft-wide surfacing tapers.

Eastbound I-10 to Northbound I-25 (Ramp A). The Recommended Build Alternative for the I-10/I-25 Interchange proposes to realign the direct-connector ramp linking I-10 EB to I-25 NB by locating it northwards in a vacant area bound by I-10, I-25 and Cholla Road. The direct-connector ramp would consist of one 14-ft driving lane, with a 4-ft inside shoulder, a 10-ft outside shoulder, and two concrete wall barriers. The new I-10 EB to I-25 NB direct-connector ramp would depart on the right-hand side of I-10 and fly-over the existing I-10 EB and WB lanes, then curve on an elevated embankment to fly-over the I-25 SB and NB lanes to enter on the right-hand side of the two-lane I-25 NB roadway The alignment of Las Alturas Road would be modified slightly to accommodate the entry on the right-hand side of the I-25 NB lane.

3.1.2 Bridge Structures

Ramp A and Ramp B. Widening of the existing bridge over I-25 and Cholla Road will be required for both *Ramp A* and *Ramp B*. Two (2) additional bridge structures will need to be constructed over I-10 and I-25 for *Ramp B*. Typical sections for the proposed bridge structures proposed in the Recommended Build Alternative are included in Appendix A.

I-10 Bridges. The Recommended Build Alternative for the I-10/I-25 Interchange would remove the existing direct-connector ramp for I-25 SB to I-10 WB and reconstruct the two (2) parallel

I-10 bridges over the I-25 travel lanes due to their load-bearing limitations and substandard vertical clearance.

3.1.3 Frontage Road Improvements

Stern Drive Realignment. The Recommended Build Alternative for the I-10/I-25 Interchange includes a realignment of Stern Drive, beginning southeast of the Cholla Road intersection extending south for less than 0.5 mile. The realignment would be required to accommodate the proposed right-hand entrance of the new I-10 EB to I-25 NB direct-connector ramp.

Las Alturas Drive Realignment. The Recommended Build Alternative for the I-10/I-25 Interchange includes a realignment of Las Alturas Drive, beginning southeast of the Cholla Road intersection extending south for less than 0.5 mile. The realignment would be required to accommodate the proposed right-hand exit of the new I-10 WB to I-25 NB direct-connector ramp.

3.1.4 Drainage Improvements

Drainage Structures. The Recommended Build Alternative for the I-10/I-25 Interchange includes the modification of existing drainage structures to accommodate roadway improvements.

Four arroyos will require modifications to accommodate the direct-connector ramp improvements. The largest drainage structure is associated with the Fillmore Arroyo at MP 145. Improvements at the Fillmore Arroyo would be completed in conjunction with the pavement reconstruction along that segment, and would include the removal of the existing span bridge and installation of box culverts.

Detention Pond. The Recommended Build Alternative for the I-10/I-25 Interchange also includes the construction of an approximately 10-acre detention pond located in the undeveloped land between the direct-connector ramp linking I-10 EB to I-25 NB and the direct-connector ramp linking I-25 SB to I-10 WB.

3.1.5 Pavement Improvements

MP 143.3 to MP 146. The Recommended Build Alternative for the I-10/I-25 Interchange includes the reconstruction of the existing concrete pavement along I-10 from MP 143.3 to MP 146.

3.2. NO-BUILD ALTERNATIVE

NEPA and the NMDOT *Location Study Procedures* (NMDOT, 2000) require that the No-Build Alternative be considered as a baseline for comparison with other alternatives. The improvements that have been identified for the I-10/I-25 Interchange complex would not be implemented under the No-Build Alternative. However, the No-Build Alternative does not exclude the expense that would be required to maintain the current condition of the existing transportation facilities.

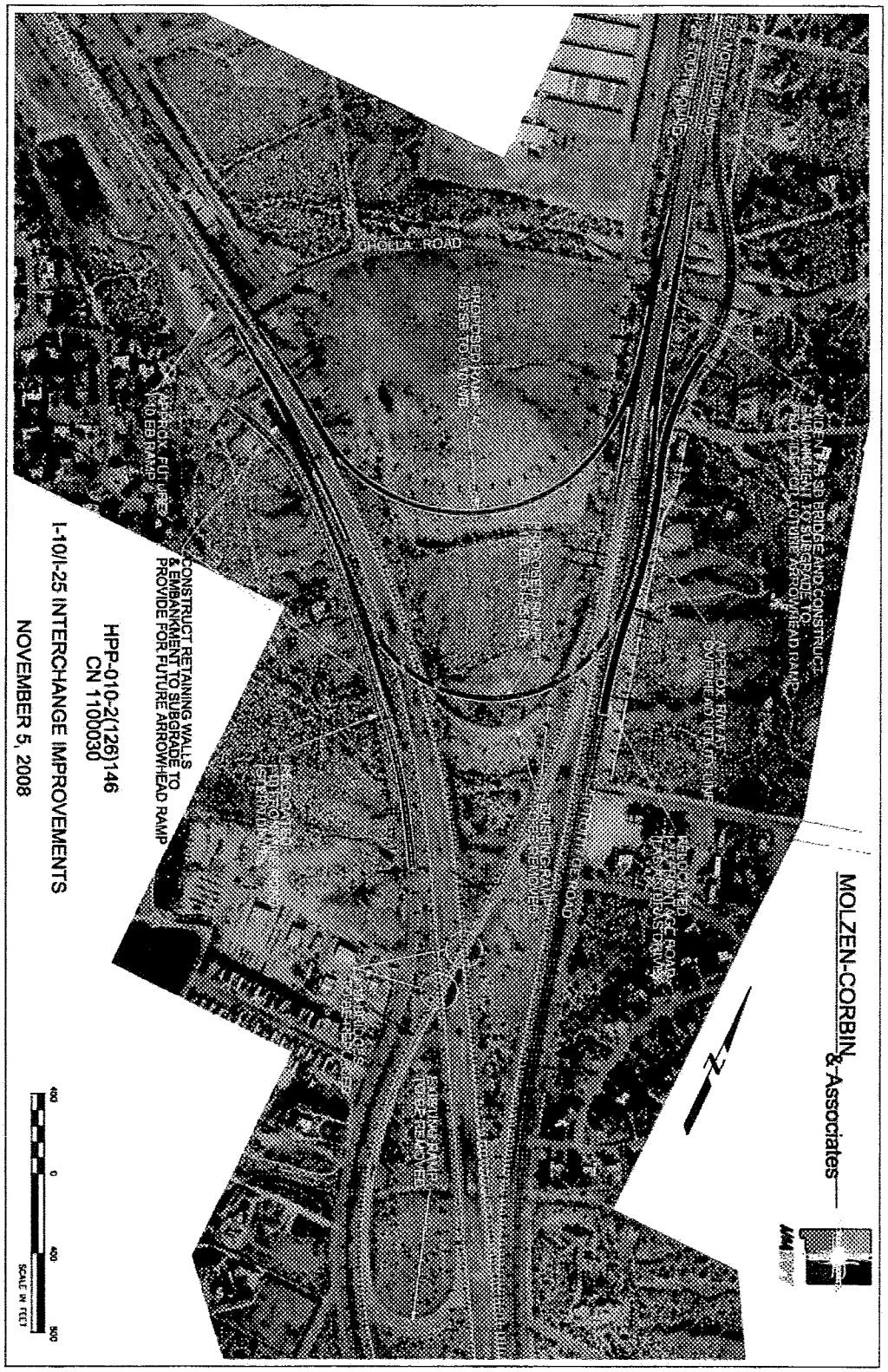

Figure 3: Recommended Build Alternative

3.3 ALTERNATIVES CONSIDERED BUT NOT RECOMMENDED

A comprehensive discussion and detailed descriptions of the design options evaluated in earlier stages of project development can be found in the *Phase A Report* (Molzen-Corbin & Associates, 2006) and *Phase B Report* (Molzen-Corbin & Associates, 2007).

Initially, five build alternatives were identified for the I-10/I-25 Interchange Improvements. Two alternatives involved the addition of a new interchange, while two more alternatives were based on modifying existing interchanges and implementing one-way frontage roads. The fifth alternative included a left-hand merge at the I-10 EB to the I-25 NB direct-connector ramp. Analysis of the options resulted in the selection of the Recommended Build Alternative with a synopsis of alternatives considered but not recommended as follows:

- New interchange at the intersection of Arrowhead Drive and I-10.
- New interchange at the intersection of I-25 with Cholla Road.
- Fly-over ramp for I-10 EB to I-25 NB traffic.
- Replacement of the existing I-10 EB to I-25 NB direct-connector ramp, resulting in a larger-radius ramp extending further west.
- Reconstructed I-10 EB to I-25 NB direct-connector ramp entering the I-25 NB lane on the left-hand side.

3.3.1 Multi-Modal Transportation Facilities

Multi-modal transportation facilities have been considered throughout the development of the I-10/I-25 Interchange Improvements, including public/agency consultation and involvement in the SCRTD. Although no specific, public transit components have been identified in the Recommended Build Alternative, those factors which have been proposed will not preclude the future adoption of multi-modal transportation options within the region.

4.0 ENVIRONMENTAL CONSIDERATIONS

4.1 SCOPE OF THE ENVIRONMENTAL ANALYSIS

The following sections describe existing environmental conditions, evaluate expected impacts, and recommend mitigation measures to minimize any anticipated adverse impacts associated with the proposed improvements. Information pertaining to environmental conditions was assembled from several sources, including field inspections, review of public records and databases, consultation with interested agencies, and public input. Quantitative and qualitative methods have been used to evaluate the project impacts for a wide range of resources.

4.1.1 Area of Environmental Consideration

The I-10/I-25 Interchange is located in Las Cruces, Doña Ana County, New Mexico. The anticipated limits of construction for the I-10/I-25 Interchange Improvements are MP 143.3 to MP 146 along I-10, with the area of environmental consideration expanding westward to the I-10/NM 478 Interchange (South Main Street) in Las Cruces (MP 142).

4.1.2 Analysis of Alternatives

Under the No-Build Alternative, the I-10/I-25 Interchange would remain in its existing condition. Although the No-Build Alternative would be expected to have a minimal impact on the natural environment, it would not meet the purpose and need identified for the project. Moreover, the No-Build Alternative does not preclude all financial commitments, as ongoing costs would be required to maintain the I-10/I-25 Interchange in its current condition. Therefore, the following discussion focuses on evaluating expected impacts of the Recommended Build Alternative for the I-10/I-25 Interchange Improvements.

4.2 GENERAL ENVIRONMENTAL SETTING

4.2.1 Climate

The I-10/I-25 Interchange area features a mild arid to semi-arid climate, with an average annual precipitation of 10 inches. Summer rainfall contributes more than 50 percent of total rainfall, often occurring as intense and localized thunderstorms. Mean annual temperature is approximately 62 degrees Fahrenheit (F), with summer temperatures often exceeding 100 degrees F and winter nighttime temperatures dropping below freezing. Prevailing winds are most common from the southwest with spring as the windiest season.

4.2.2 Physiography

The elevation of the I-10/I-25 Interchange area is approximately 4,000 ft above sea level (asl). The project area is located on western slopes adjacent to the broad valley and floodplain of the Rio Grande. The terrain continues to gently rise to the east, over the lower, alluvial fans and interfan valleys of the Organ Mountain range. The I-10/I-25 Interchange lies near the southern boundary of the Jornada del Muerto, within the physiographic region known as the Mexican Highland Section of the Basin and Range Province (Hawley, 1986). No unique geologic formations exist within the project area.

4.3 SOILS

The I-10/I-25 Interchange complex is dominated by Bluepoint loamy-sands, which are found on terraces, ridges, and alluvial fans in the elevated margins of the Rio Grande Valley (Soil Conservation Service, 1977). Interfan valleys and broad drainages of the project area contain soils of the Bluepoint-Caliz-Yturbide complex, the Riverwash-Arizo complex, and the Canutio and Arizo gravelly sandy loams. The soils originate from alluvial deposits, and are deep and well-drained.

A Storm Water Pollution Prevention Plan (SWPPP), in compliance with the National Pollutant Discharge Elimination System (NPDES) permitting requirements, will outline erosion control measures and best management practices (BMPs) to mitigate soil erosion. A Temporary Erosion and Sediment Control Plan (TESCP) will be included in the construction plans. Disturbed areas will be re-vegetated after construction, if appropriate. No discharge of hazardous materials into the soil will be allowed during construction.

4.4 WATER RESOURCES

4.4.1 Surface Water

The *Clean Water Act of 1972* (CWA) regulates activities that have the potential to impact jurisdictional "waters of the United States". Section 404 of the CWA regulates dredge-and-fill activities at roadway-crossings of jurisdictional waters. The U.S. Army Corp of Engineers (USACE) is authorized to provide regulatory guidance and issue permits governing these activities.

Field surveys have identified five (5) ephemeral arroyos within the project area that drain into the Rio Grande, and hence qualify as "waters of the United States" under the CWA. A Section 404 Nationwide Permit Number 14 will be required prior to construction at these locations. Temporary and permanent erosion/sedimentation control measures will be implemented in compliance with the NPDES permit program, and a SWPPP will be developed for the project.

4.4.2 Ground Water

The *NM Water Quality Act of 1978* requires the NM Environment Department Ground Water Quality Bureau (NMED-GWQB) to protect the environmental quality of the state's ground water resources. The I-10/I-25 Interchange complex is located in the lower Rio Grande monitoring area, which encompasses Doña Ana and Sierra Counties.

The I-10/I-25 Interchange complex lies over the Mesilla Bolson, an aquifer that covers approximately 11,000 square miles centered on the Rio Grande in southern NM. The aquifer typically flows in a southerly direction. Depth to groundwater is less than 200 ft below land surface (bls) (U.S. Geology Service, 2005), and remains relatively constant through recharge from the river and regional irrigation.

As a mitigation measure, engineering and drainage plans will be designed to minimize roadway runoff and potential groundwater impacts. Standard control measures that protect groundwater will be implemented as part of NMDOT's construction contracting requirements.

4.5 BIOLOGICAL RESOURCES

A comprehensive description of biological resources within the project area is presented in *Biological Evaluation and Assessment: I-10 Corridor Study* (Taschek Environmental Consulting, 2007a), which reports the results of a pedestrian survey conducted during July and August of 2006.

4.5.1 Vegetation

The project area is primarily located within the Chihuahuan Desert Scrub community (Dick-Peddie, 1993), interspersed by elements of the Desert Grassland community (Cully and Knight, 1987).

The plant species affected by construction activities are common and widespread throughout the region. Furthermore, construction primarily will be restricted to the existing right-of-way, which is already dominated by species that readily recover after disturbance. If appropriate, NMDOT will implement various options to reestablish native vegetation once construction is completed.

4.5.2 Wildlife

Project-related construction activities are likely to cause larger mammals, reptiles, and birds to relocate to other areas. Individuals of smaller, less-mobile species, inadvertently could be impacted by construction activities. Small areas of wildlife habitat could also be disturbed by construction, but extensive areas of similar or higher-quality habitat remain in the vicinity of the I-10/I-25 Interchange.

Therefore, the proposed improvements to the I-10/I-25 Interchange are not expected to have a significant impact on wildlife populations in the area.

4.5.3 Threatened and Endangered Species

The federal *Endangered Species Act of 1973* (ESA) requires that floral and faunal species listed with an endangered, threatened, proposed, or candidate protection status must be evaluated for potential impacts from the proposed project. The U.S. Fish and Wildlife Service (USFWS) acts as the regulatory authority for ESA. Additional protection of some species is also conferred under state statutes, including the *New Mexico Wildlife Conservation Act of 1974* and the *New Mexico Endangered Plant Species Act of 1978.* The NMDGF and the New Mexico Energy, Minerals and Natural Resources Department (Rare Plants Program) (NMEMNRD) regulate state protection of fauna and flora, respectively.

The USFWS, NMDGF, NMEMNRD, BLM, and New Mexico Natural Heritage Program (NMNHP) were consulted. Appendix B contains correspondence and species lists received by these agencies, as well as target lists of species developed from the federal and state lists by comparing habitat requirements of the species to the natural communities within the area.

No protected species were observed within the area of the I-10/I-25 Interchange. Therefore, the proposed improvements to the I-10/I-25 Interchange will have no effect on threatened, endangered, candidate, state sensitive, and "of concern" species.

4.5.4 Migratory Birds

The *Migratory Bird Treaty Act of 1918* (MBTA) protects against the "taking" of migratory birds, their nests, and their eggs, except as permitted by USFWS. Construction projects that involve removing trees or shrubs, or disturbing on-ground or underground nests or nesting structures, must comply with the MBTA.

Migratory birds and bird nests were directly observed during the biological surveys. Therefore, as a mitigation measure, construction activities will be initiated during the non-nesting season (September-March) to avoid disturbing the habitat of nesting migratory birds. Construction that commences during the nesting season will be preceded by a pre-construction survey and other mitigation procedures, as described under USFWS permitting requirements.

4.5.5 Noxious Weeds

Management to prevent the spread of noxious weeds is required under the federal *Executive Order (EO) 13112* and *NM EO 00-22*. The NM Department of Agriculture (NMDA) has developed a list of noxious weeds (NMDA, 1999) for control or eradication pursuant to the *NM Noxious Weed Management Act of 1998*. Such species are non-native to NM and are targeted to minimize negative impacts on the economy or environment.

Biological surveys within the area of the I-10/I-25 Interchange identified one Class B noxious weed: Malta starthistle (*Centaurea melitensis*). These weed populations will be controlled before construction commences following guidelines described by the NMDOT's *Vegetation Management Program* (NMDOT, 2007) and in *Biological Evaluation and Assessment: I-10 Corridor Study* (Taschek Environmental Consulting, 2007a).

No further action is required for the two observed Class C noxious weed species of salt cedar (*Tamarix ramosissima*) and Siberian elm (*Ulmus pumila*).

4.6 SPECIALLY DESIGNATED AREAS

4.6.1 Wetlands

Wetlands are protected from unauthorized dredge-and-fill activities under *EO 11990* and Section 404 of the CWA. Jurisdictional wetlands are identified by the USACE based on soil saturation features and vegetation type.

Five (5) ephemeral arroyos cross the project area, but none features a consistently adequate level of moisture to be classified as jurisdictional wetlands. Therefore, the proposed improvements are compatible with the wetlands management objectives of *EO 11990* and Section 404 of the CWA.

4.6.2 Floodplains

Protection of floodplains is mandated under *EO 11988*, which requires that any potential impacts to floodplain areas be studied, assessed, and identified to reduce the risk of flood loss, minimize the impact of floods on human safety, and preserve the beneficial values served by floodplains.

The area of the I-10/I-25 Interchange has been mapped by the Federal Emergency Management Agency (FEMA) on the Federal Insurance Administration Flood Hazard Boundary Map

Community-Panel Number 35013C0634E (Appendix B). The map indicates the project area, primarily, to be within Flood Zone X. Additional locations crossing, or adjacent to, the project area are designated as Flood Zone A. Flood Zone X is not at risk from inundation during a 100-year flood. Flood Zone A indicates that, although detailed analyses have not been conducted to quantify depths or base flood elevations, these areas are at risk from inundation during a 100-year flood.

In accordance with *EO 11988*, the project will not alter flood hazard conditions or impact floodplains. Engineering plans will be designed to minimize roadway runoff and will not modify floodplains.

4.6.3 Prime Farmland

The federal *Farmland Protection Policy Act* of 1981 aims to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural use. The U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) farmland classification system is based on a combination of factors including soil type, moisture supply, growing season, and current production status. However, no agricultural activity has historically occurred at this location.

Therefore, the proposed improvements to the I-10/I-25 Interchange are not expected to have a significant impact on prime farmland in the region.

4.6.4 Section 4(f) Property

Section 4(f) of the *Department of Transportation Act of 1966* restricts the use of public parks, recreational areas, wildlife refuges, and significant historic sites for transportation projects. This regulation is not applicable to any property within the area of the I-10/I-25 Interchange.

4.6.5 Section 6(f) Property

Properties purchased or developed under the authority of *Section 6(f)* of the *Land and Water Conservation Fund Act of 1964* may not be converted to uses other than outdoor public recreation. This regulation is not applicable to any property within the area of the I-10/I-25 Interchange.

4.7 CULTURAL RESOURCES

Potential impacts to cultural resources are assessed through *Section 106* of the *National Historic Preservation Act of 1966*. Cultural resources are evaluated in consultation with the State Historic Preservation Officer (SHPO). This process identifies historic properties that could be affected by the project, and determines approaches to avoid, minimize, or mitigate adverse effects.

A comprehensive description of cultural resources within the area of the I-10/I-25 Interchange is presented in *Cultural Resources Survey for the Interstate 10 Corridor Study: Las Cruces to Texas State Line, Dona Ana County, New Mexico* (Taschek Environmental Consulting, 2007b), which reports the results of a pedestrian survey conducted during July and August 2006.

The field survey identified several descansos (historic markers), but no archeological sites within the construction limits of the Recommended Build Alternative. Therefore, the proposed

improvements to the I-10/I-25 Interchange are not expected to adversely impact cultural resources. Concurrence on this determination has been completed by the NMDOT, on December 12, 2008, under the present agreement with New Mexico State Historic Preservation Division, effective June 21, 2005. Documentation on this coordination is included in Appendix B.

As a mitigation measure, the descansos will be removed prior to construction and replaced in or near their original locations as the project is completed. If buried archeological or cultural deposits are discovered during construction, work in the area will immediately cease while SHPO and the NMDOT Environmental Section are consulted. If there is a discovery of Native American human remains during construction, all construction activity will cease while the appropriate tribes are consulted for treatment and disposition of the human remains and associated funerary objects, pursuant to the *Native American Graves Protection and Repatriation Act of 1990.*

4.8 NOISE

Traffic noise impacts, as defined in the *Code of Federal Regulations (CFR), Title 23, Part 772 (23 CFR 772)* and NMDOT's noise policy, occur when predicted traffic noise levels resulting from a transportation project either:

- approach or exceed the FHWA noise abatement criteria (NAC) (Table 1), or
- are greater than 57 A-weighted decibels (dBA) at average hourly levels (Leq) and exceed existing ambient noise levels by 10 dbA (Leq).

Table 1. FHWA Noise Abatement Criteria

Category	Leq(h) [1]	Land Use Activity
A	57 (Exterior)	Lands on which serene and quiet are of extraordinary significance and serve an important public need and where preservation of those qualities is essential if the area is to continue to serve its intended purposes.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Developed lands, properties, or activities not included in Category A or B above.
D	-	Undeveloped land.
E	52 (Interior)	Residences, motels, public meeting rooms, schools, churches, libraries, hospitals, or auditoriums.

[1] *Traffic noise is quantified in decibels, which measure relative acoustic energy intensities. A- weighted decibels, or dBA, simulate human response to noise, and average hourly levels, Leq(h), address the time-varying characteristics of noise. The full unit of measurement is the dBA (Leq[h]).*

Under these conditions, state and federal policy requires an assessment of abatement measures to provide reasonable and feasible reductions in noise levels at the impacted locations, based on factors such as:

- a noise reduction of at least 5 dBA is achieved,
- costs are less than $40,000 per benefited receptor,
- noise abatement is limited to existing development, and
- commercial land uses (Category C, Table 1) or isolated residences are generally excluded from noise abatement or mitigation.

A comprehensive evaluation of potential noise impacts for the I-10/I-25 Interchange complex is presented in *Traffic Noise Analysis for Interstate 10: Las Cruces to Texas State Line* (Mike Henderson Consulting, 2007). The FHWA Traffic Noise Model (TNM) was used to predict potential noise impacts associated with the Recommended Build Alternative and the expected increase in traffic. Noise receptor locations were identified adjacent to the project area. The TNM model indicates that noise levels at most receptor locations are expected to increase by 1-4 dBA and exceed the 67 dBA NAC by the year 2030.

Potential costs and benefits of installing noise walls to mitigate excessive traffic noise levels at locations where noise levels are predicted to exceed the 67 dBA NAC by the year 2030 were also analyzed using TNM (Table 2).

Table 2. Noise Level Abatement in the I-10/I-25 Interchange complex.

Location	Modeled Noise Levels (dBA)			Wall Dimensions (ft)		Cost per Receptor ($)	Warranted
	2030 Build	With Wall	Noise Reduction	Length	Height		
West of I-10 near Cholla Road/ Broadmoor Drive	64-71	60-68	2-6	4,400	12-14	52,450	
East of I-25 near Cholla Road	65-70	62-64	3-6	3,440	12	164,640	
East of I-25 south of Tellbrook Road	68-72	63-68	4-6	2520	18	127,000	
La Fe De Manor Mobile Home Park at Larjon Road	65-68	64-65	1-3	1,600	10-14	n.a.	
Villa del Sol Mobile Home Park at C Street & F-Street	68-71	62-65	3-9	1,600	10	32,000	√

Source: Traffic Noise Analysis for Interstate 10: Las Cruces to Texas State Line (Mike Henderson Consulting, 2007).

The analysis concluded that noise walls would be infeasible or unreasonable at several locations, due either to cost or to the unlikelihood of achieving a 5 dBA noise reduction. However, a noise wall is warranted, based on state and federal noise policy, for reduction of noise to the southwest of the I-10/I-25 Interchange (Villa Del Sol Mobile Home Park). Preliminary details of the location and noise wall elevations for mitigation are presented in the *Traffic Noise Analysis for Interstate 10: Las Cruces to Texas State Line* completed in 2007, as well as the *I-10/I-25 Interchange Supplemental Noise Abatement Analysis* completed in 2009 (Mike Henderson Consulting). Since completion of the original study in 2007, the noise wall location has been further refined during final design and is proposed directly adjacent to the Interstate, on the east side of Stern Drive. An aerial identifying the proposed location of the noise wall is included in Appendix A.

4.9 AIR QUALITY

The *Clean Air Act of 1970*, as amended, establishes the National Ambient Air Quality Standards (NAAQS) to protect public health from exposure to dangerous levels of six air pollutants: ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), lead (Pb), and

airborne particulate matter (PM_{10}). The project area is an attainment area for all six air pollutants.

Some temporary impacts to air quality may be expected from dust during construction. These impacts would be localized and restricted to the period of construction. A *Natural Events Action Plan of Doña Ana County* (NMED-AQB, 2000) (NEAP) has been adopted to offset generation of dust during construction activities. Dust control measures, in accordance with the NEAP, will be incorporated into construction plans.

Therefore, the proposed improvements to the I-10/I-25 Interchange are not expected to have a significant impact on air quality within the project area.

4.10 LAND USE

The I-10/I-25 Interchange complex is located in the City of Las Cruces, Doña Ana County, New Mexico. Land use activities within the project area, including subdivisions and commercial development, are regulated by policies and ordinances established by both the City of Las Cruces and Doña Ana County. Transportation issues are also addressed by the Las Cruces MPO.

Existing land use within the project area includes a combination of residential and commercial development. In addition, coordination with the New Mexico State University (NMSU) has been ongoing throughout the study due to their proximity to the I-10/I-25 Interchange, as well as to ensure that the Recommended Build Alternative would complement roadway alignments proposed in NMSU's *Draft Master Plan 2006-2016* (NMSU, 2006).

Continued growth in both residential and commercial land use is expected within the project area. Overall, the project is consistent with local expectations about land use, city and county development control ordinances, and transportation goals of the Las Cruces MPO. Coordination with the associated regulatory agencies, planning agencies, and landowners will continue through final design.

4.11 ACCESS AND TRANSPORTATION

4.11.1 Access and Safety

The Recommended Build Alternative addresses the comments received during the public involvement process that highlighted concerns regarding traffic access and safety at the interchange. Specific improvements at the I-10/I-25 Interchange include the realignment of connectors to improve geometry, construction of overpasses and flyovers to keep traffic separated, and the addition of a right-hand merge for the I-10 EB to I-25 NB direct-connector ramp.

Therefore, the proposed improvements to the I-10/I-25 Interchange are not expected to have a significant impact on access and safety.

4.11.2 Multimodal Transportation Service

Currently, pedestrian, bicycle, and equestrian use is permitted on the frontage roads within the project are but not allowed within the I-10/I-25 Interchange complex.

Additional multimodal transportation services that utilize the I-10/I-25 Interchange include regional motor coach and shuttle services between the major urban centers of Las Cruces and El Paso. School bus routes are established along the frontage roads. In addition, the SCRTD is expected to promote an efficient and multi-modal transportation network across southern NM. Coordination with the SCRTD has been ongoing in order to ensure that the proposed improvements do not preclude future multi-modal transportation initiatives.

The proposed improvements at the I-10/I-25 Interchange are not expected to have a significant impact on the existing pedestrian, bicycle, or equestrian facilities; however, no additional pedestrian, bicycle, or equestrian facilities are proposed under the Recommended Build Alternative.

4.11.3 Emergency Services

Emergency departments will be updated frequently on the project status so that service and access will not be disrupted.

The proposed improvements to the I-10/I-25 Interchange would enhance traffic safety and access within the project area; therefore, an improvement in the response time of vehicular emergency services is expected.

4.12 RIGHT-OF-WAY ACQUISITION

The I-10/I-25 Interchange Improvements are expected to require the acquisition of additional right-of-way, within the area bounded by I-10, I-25, and Cholla Road, for the reconstruction of the direct-connector ramps. Other components associated with the ramp modifications and frontage road realignments will remain entirely within the existing right-of-way. An estimate of the additional right-of-way required at the I-10/I-25 Interchange is 24 acres.

No residences or businesses are anticipated to be displaced as a result of the proposed right-of-way acquisition. Right-of-way acquisition will conform with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*, as well as other applicable regulations.

It is expected that construction and maintenance easements (CME's), temporary construction permits (TCP) and/or work permits will be required for the project, with additional information developed during final design.

4.13 HAZARDOUS MATERIALS

Contamination of soil or water with hazardous materials is a serious concern due to health, safety, and the liability of clean-up operations. An extensive set of regulations address the management of hazardous substances in transportation projects, including:

- *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* – materials that may create a risk to health, safety, and property;
- *Resource Conservation and Recovery Act of 1976*– hazardous wastes;
- *Clean Water Act of 1972* – water pollutants;

- *Clean Air Act of 1970* – air pollutants;
- *Toxic Substances Control Act of 1976* – chemical substances; and
- *42 USC 9601* – substances that may present substantial danger to public health and the welfare of the environment.

An initial site assessment (ISA) identifies sites with recognized environmental conditions that could impact the project due to the potential presence of contamination from petroleum products or other hazardous substances. The results of an initial ISA for a portion of the I-10/I-25 Interchange complex are presented in *Initial Site Assessment Summary: I-10 Milepost 144.0 to 164.3, Doña Ana County, NM* (NMDOT, 2006). The remainder of the project area, MP 142 to MP 144, is currently under investigation and will be presented in a separate ISA. Any hazardous material sites identified will be disclosed and managed prior to construction. If necessary, a further assessment of environmental hazards will be conducted during final project design to determine the need for a more detailed, preliminary site investigation (PSI).

Hazardous materials used during construction will be managed in accordance with federal, state, and local laws and regulations to ensure that no contamination of the soil and ground or surface water will occur within the I-10/I-25 Interchange complex.

4.14 VISUAL RESOURCES

The I-10/I-25 Interchange complex is characterized by many of the visual features associated with a major transportation route, including elevated bridges, signs, and billboards. Specifically, the proposed construction of elevated ramps at the I-10/I-25 Interchange could modify views for residents in surrounding neighborhoods. The existing interchange configuration contains several elevated sections for the direct-connector ramps, which will generally follow a similar vertical profile under the Recommended Build Alternative. Potential visual impacts associated with the I-10 EB to I-25 NB direct-connector ramp have been a primary focus of neighborhood discussions, and will be carefully evaluated throughout final project design. The right-hand merge option for the I-10 EB to I-25 NB direct-connector ramp would require additional structures to carry traffic over both the SB and NB lanes of I-25. This fly-over would be approximately 21-ft above the roadway surface, which is a similar elevation to the other direct-connector ramps within the interchange complex.

The introduction of a noise wall at the southwestern edge of the interchange will modify views along Stern Drive. However, the height of the noise wall will remain below the height of the bridge structures and the direct connector-ramps, and is separated from residential development by Stern Drive. Therefore, the noise wall construction is not expected to result in a significant impact to visual resources.

Any street lighting features included during final design will comply with the *NM Night Sky Protection Act of 1978* and are not expected to result in a significant impact to the area.

4.15 UTILITIES

A preliminary description of utilities located within the I-10/I-25 Interchange complex is presented in *Utilities Records Research* (Abasto Utility Locating Company, 2006). An extensive record search identified a significant presence of utilities within the project area.

Proposed improvements to the I-10/I-25 Interchange are expected to encroach on the current configuration of some utilities. Therefore, the NMDOT will continue coordination with utility companies throughout the final stages of project design. If it is determined that impacts to utilities are unavoidable and relocation is found to be necessary, the NMDOT will contact and provide all available project information to the affected utility companies to ensure that service disruptions to area residents are minimized.

4.16 SOCIAL ISSUES

4.16.1 Environmental Justice

EO 12898 prevents federal policies and actions from creating disproportionately high and adverse health and environmental impacts to minority and low-income populations. *Title VI* of the *Civil Rights Act of 1964* and related statutes ensure that individuals are not subjected to discrimination on the basis of race, color, national origin, age, sex, or disability under any program or activity receiving federal financial assistance.

Table 3 provides an overview of the demographic characteristics of the area. Based on data from the U.S. Census (2000), the general project area (represented by Las Cruces) has a similar percentage of minority population groups and a similar population of persons below the poverty level to the surrounding areas. However, there is no indication that a disproportionate number of minority or low-income population groups would be affected by the Recommended Build Alternative.

Table 3. Demographic Characteristics of the Project Area.

	New Mexico		
	City of Las Cruces	**Doña Ana County**	**New Mexico**
Population			
Population, 2000	74,276	174, 682	1,819,046
Minority Representation			
White alone	51,248	118,478	1,214,253
Non-white	23,109	56,204	604,793
% non-white	31%	32%	33%
Economic Data			
Median Household Income,1999	$30,375	$29,808	$34,133
Per Capita Income, 1999	$15,704	$13,999	$17,261
% persons below poverty, 1999	23%	25%	18%

Source: U.S. Department of Commerce, U.S. Census Bureau, 2000 Census data

Demographic characteristics of neighborhoods adjacent to the I-10/I-25 Interchange were evaluated in greater detail in response to the various components of the Recommended Build Alternative. Table 4 presents data from the U.S. Census (2000) at the Census block residences along the east side of the I-10/I-25 Interchange and Census Tract 11.01 (Block Groups 2 and 3) representing the residences on the western side. Although data at this level still represents an area greater than the adjacent neighborhoods, it does offer a closer evaluation of the demographic characteristics in the project area.

Table 4. Demographic Data for Areas Adjacent to the I-10/I-25 Interchange.

	Census Tract 11.01		Census Tract 12.02		City of Las Cruces	Doña Ana County	New Mexico
	Block Group 2	Block Group 3	Block Group 7	Block Group 8			
Minority Representation							
% non-white	30%	21%	10%	14%	31%	32%	33%
Economic Data							
% persons below poverty, 1999	22%	21%	10%	11%	23%	25%	18%

Source: U.S. Department of Commerce, U.S. Census Bureau, 2000 Census data

Table 4 indicates that a higher percentage of minorities and persons below the poverty level are found in Census Tract 11.01 (Block Groups 2 and 3) than in Census Tract 12.02 (Block Groups 7 and 8). However, indicators of minority representation and economic status for this group are above averages derived at the city, county, and/or state level. Therefore, this analysis does not identify environmental justice concerns with regard to the Recommended Build Alternative.

4.16.2 Community Cohesion

Transportation projects can impact community cohesion by splitting neighborhoods, isolating development, changing property values, or separating residents from community facilities. Relationships and travel patterns of neighborhoods within the I-10/I-25 Interchange area were investigated during public involvement activities.

The proposed improvements are not anticipated to result in a loss of community adhesion. The I-10/I-25 Interchange is an existing facility, and much of the project will be conducted within the current NMDOT right-of-way. No established neighborhoods will be divided or isolated by the project. The community may also benefit from the enhanced local and regional access provided by the improvements to the I-10/I-25 Interchange.

4.17 ECONOMIC DEVELOPMENT AND EMPLOYMENT

I-10 is the southernmost east-west interstate traversing the U.S., and I-25 provides north-south access commencing at the I-10/I-25 interchange. Both interstate routes are used for regional and interstate business, freight, tourist, residential, and recreational travel which rely heavily on access through the I-10/I-25 Interchange.

Members of the local business community and the public have expressed support for access and capacity improvements to the I-10/I-25 Interchange complex as a means of stimulating local and regional economic development. Funds spent on construction would provide employment, and create a multiplier effect on the local economy. The Recommended Build Alternative is expected to provide economic development opportunities both within and beyond the I-10/I-25 Interchange area.

4.18 CONSTRUCTION IMPACTS

Typical short-term inconveniences will be experienced during proposed construction of the I-10/I-25 Interchange improvements. Maintaining access and minimizing construction-related traffic delays is an integral part of the Recommended Build Alternative, and efforts will be made throughout the design and construction process to minimize disruptions. Interstate and frontage road access will be maintained throughout construction by re-routing traffic as necessary. Any temporary modification to traffic patterns will follow established FHWA and NMDOT safety procedures. Emergency departments will be updated frequently on the project so that service and access will not be disrupted.

Noise levels will often be greater than normal in areas adjacent to construction. However, the construction work will typically occur during daylight hours when loud noises are more tolerable, and measures to control construction noise will be implemented.

Air quality may also experience localized, short-term, adverse impacts during construction, resulting from smoke, dust, and exhaust emissions. Compliance with standard NMDOT, NMED, and Doña Ana County NEAP regulations and specifications will be strictly administered for all burning operations and dust-producing aspects of construction.

A SWPPP will be developed for the project to ensure compliance with the terms and conditions of the NPDES permit program. Procedures will be included in the plan to reduce pollutants in storm water discharges associated with the construction site. Precautions to prevent release of sedimentation pollution into drainages will also be detailed in the TESCP included in construction contracts. Unwanted materials and surplus concrete generated by the construction will be deposited at suitable sites.

A variety of utility adjustments may be made during construction. These adjustments will be identified specifically during final project design. Efforts will be made to accommodate the needs of property and utility owners.

4.19 SECONDARY IMPACTS

The Council on Environmental Quality (CEQ) defines secondary impacts as those that are expected to be caused by the proposed project at a later time or at some distance.

Most of the proposed improvements are expected to occur in the existing NMDOT right-of-way, which has been previously disturbed by other roadway construction activities. Therefore, the proposed construction will not significantly impact land use, community cohesion, or travel patterns in the area. As discussed in Section 4.17, opportunities for economic development are

expected as a result of the Recommended Build Alternative. In addition, the Recommended Build Alternative is expected to improve traffic safety, enhance the local and regional transportation network, and enhance system connectivity both within and beyond the I-10/I-25 Interchange area.

4.20 CUMULATIVE IMPACTS

Cumulative impacts arise from the incremental consequences of a project when added to other, past and foreseeable future actions.

The proposed improvements to the I-10/I-25 Interchange will also help to accommodate the increased traffic expected from various residential and business developments occurring in the Las Cruces area. The interchange improvements are not expected to directly increase traffic or require additional improvements along other sections of I-10, I-25, or surrounding arterial roads. Close coordination with the Las Cruces MPOs has been ongoing and no concerns have been identified with the current proposal.

The consideration of other reasonable foreseeable transportation improvements in the region will not be restricted by the proposed project. Specifically, the potential for a future interchange located at Arrowhead, just east of the I-10/I-25 Interchange, was considered throughout project design. The associated IJR being prepared for the Recommended Build Alternative provides additional documentation with regard to foreseeable transportation improvements, including the potential Arrowhead Interchange.

Furthermore, the Recommended Build Alternative will not preclude any of the proposed improvements included in the *I-10 Corridor Study*. Ultimately, the Recommended Build Alternative will be complementary to the proposed six-lane widening of I-10, as well as the corresponding interchange improvements (i.e. I-10/NM 404, I-10/NM 228, I-10/NM 227).

5.0 ENVIRONMENTAL COMMITMENTS

- A SWPPP will be developed to define erosion control measures, storm water management measures, structural controls, and BMPs to mitigate erosion.
- A TESCP will be included in the construction plans.
- No discharge of hazardous materials into the soil will be allowed during construction.
- A Section 404 Nationwide Permit, issued through the USACE, is required before construction commences.
- Final construction plans will be designed to ensure that the Recommended Build Alternative will not alter runoff patterns from the interchange.
- The NMDOT will implement various options to reestablish native vegetation once construction is completed.
- Construction activities (including the removal of existing culverts and/or bridges, and the clearing of shrubs and cacti) will be initiated during the non-nesting season (September-March) to avoid disturbing the habitat of nesting migratory birds. Construction that commences during the nesting season will be preceded by a pre-construction survey and other mitigation procedures, as described under USFWS permitting requirements.
- Populations of the Class B noxious weed, Malta starthistle (*Centaurea melitensis*), will be controlled before construction commences, following guidelines described by the NMDOT Vegetation Management Program.
- The proposed improvements will not alter flood hazard conditions or impact floodplains, in compliance with *EO 11988*.
- During construction activities, the NMDOT will remove the descansos (historic markers) that were recorded within the project area, and replace them in or near their original location as the project is completed.
- If buried archeological or cultural deposits are discovered during construction, work in the area will cease while the SHPO and NMDOT Environmental Section are consulted. If Native American human remains are discovered during construction, construction activity will cease while the appropriate tribes are consulted for treatment and disposition of these objects, pursuant to the *Native American Graves Protection and Repatriation Act of 1990*.
- Specifications for the noise wall warranted southwest of the I-10/I-25 Interchange will be refined prior to construction.
- Dust control measures, in accordance with the *NEAP for Doña Ana County* (NMED-AQB, 2000), will be incorporated into construction plans.

- Emergency departments will be updated frequently on the project status so that service and access will not be disrupted.

- Owners of property acquired for additional right-of-way will be compensated in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970* and other applicable federal and state regulations.

- If necessary, a further assessment of environmental hazards will be conducted during final project design to determine the need for a more detailed preliminary site investigation (PSI).

- Hazardous materials used during construction will be managed in accordance with federal, state, and local laws and regulations. Appropriate procedures will also be adopted to protect the health and safety of employees and the public.

- Street lighting features that are included in the final project design will comply with the *NM Night Sky Protection Act of 1978*.

- The NMDOT will continue coordination with utility companies throughout the final stages of project design. If it is determined that impacts to utilities are unavoidable and relocation is found to be necessary, the NMDOT will provide available project information to the affected utility companies to ensure that service disruptions to area residents are minimized.

- Unwanted materials generated by construction activities will not be dumped in "Waters of the U.S." or vacant areas. Materials will be deposited in suitable sites.

6.0 PUBLIC INVOLVEMENT AND AGENCY COORDINATION

In accordance with NEPA, a program was implemented to encourage agency coordination and public involvement in the I-10/I-25 Interchange Improvements. Feedback received during this process assisted in the identification of potential project impacts, and influenced the design of the Recommended Build Alternative.

6.1 PUBLIC INVOLVEMENT PLAN

A public involvement plan (PIP), *I-10 Corridor Study Public Involvement Plan* (Taschek Environmental Consulting, 2005), was prepared for the I-10/I-25 Interchange Improvements as part of the evaluation process for the proposed *I-10 Corridor Study*. The PIP disclosed potential social and environmental issues, identified stakeholders, and outlined the anticipated public involvement effort needed to complete the project.

6.2 AGENCY COORDINATION

In September 2005, an initial letter providing notification of the upcoming improvement project and soliciting input on potential issues of concern was mailed to agencies identified in the PIP. Agency responses were limited typically to areas of resource specialty (Appendix B). Concerns expressed during the agency review process were considered during project development, and have also been addressed in this EA.

6.3 STAKEHOLDER AND COMMUNITY INVOLVEMENT

Public and stakeholder outreach was implemented using a variety of direct mail and workshop-oriented methods, including:

- public open-houses, informational meetings, and individual contacts;
- meetings with special interest groups, business owners, and neighborhood associations; and
- meetings with elected officials and representatives of local government agencies.

The public involvement process included a diverse selection of formats, venues, and participants. Nonetheless, the input received at these forums revealed a similar set of concerns and needs for the various stakeholder groups, and is summarized below. Additional information regarding the public involvement process is included in Appendix C. Feedback received from the stakeholder forums was considered during project development, and has also been addressed in this EA.

6.3.1 Agency and Community Stakeholder Meetings

A total of four stakeholder meetings have been held, as summarized below:

- An initial agency stakeholder meeting was held on August 25, 2005, in Las Cruces, NM. The meeting was well attended, including representatives from NMDOT, TxDOT, BLM, Las Cruces MPO, Doña Ana County, El Paso MPO, NMSU, Border Patrol, and several law enforcement agencies. The meeting was intended to identify the needs and concerns of agency stakeholder groups in relation to the proposed project.
- A community stakeholder meeting was held on November 8, 2005, in Anthony, NM. The meeting was attended by representatives from the local communities, dairy farms, trucking

associations, and political organizations. The meeting's agenda was similar to the agency stakeholder meeting, with the objectives to identify the community's needs and concerns with regard to the proposed project.

- A combined agency and community stakeholder meeting was held on March 3, 2006, in Las Cruces, NM. The decision to include both agency and community stakeholders at this meeting was based on the similarity of issues raised at preceding meetings. The meeting's purpose was to solicit comments on the Phase A alternatives and identify priorities. Improvements to the I-10/I-25 Interchange were identified as one of the highest project priorities.
- A second combined agency and community stakeholder meeting was held on July 26, 2006, in Las Cruces, NM. The meeting was intended to present and discuss the recommended alternatives of Phase B. Comments at the meeting indicated overall support for the project, including requests for bilingual signage, elimination of the left-side exit at the interchange, and further evaluations of the weaving potential within the interchange complex.

6.3.2 Neighborhood Meetings

Neighborhood meetings were held at 2 community locations within the I-10/I-25 Interchange complex between September 20, 2005, and November 2, 2005. Attendees at all neighborhood meetings expressed general support for the project and appreciation for the opportunity to comment. Concerns presented at the meetings included:

- need for improved safety and drainage;
- support for additional I-10 access and public transportation elements; and
- concern with noise levels in residential areas.

6.3.3 Public Involvement Meeting

Two public involvement meetings have been held for the I-10/I-25 Interchange Improvements: March 15th and September 27th, 2006. The purpose of these meetings was to provide information and collect input on the recommended alternatives presented in Phase A and Phase B, respectively. Issues discussed at the meetings related to the I-10/I-25 Interchange are as follows:

- location of Cholla interchange/access;
- lighting effects and visual impacts;
- clarification on study area, project schedule, and budget;
- explanation of traffic volumes considered.

6.3.4 Property Owner Interviews

When requested, property owner interviews were held by the NMDOT and consultant staff. These meetings were scheduled to supplement or repeat project information that was provided at the public involvement or stakeholder meetings.

6.4 PUBLIC HEARING

A public hearing will be held after the FHWA releases this EA for public review. The public hearing will allow a final opportunity for public input on project design and the findings presented in this EA.

Formal notice of the availability of this EA and the public hearing date will be published in the local newspaper. Notifications will also be mailed to agencies and individuals on the stakeholder list. Copies of the EA and associated technical reports will be made available at several locations for agency and public access. The public will have at least 30 days to review and comment on this EA. An input synopsis will be prepared to address concerns received at the public hearing and during the EA review period.

7.0 CONCLUSIONS

This EA concludes that the proposed improvements within the I-10/I-25 Interchange complex will correct existing physical deficiencies, address capacity issues, improve safety, enhance system connectivity, and support economic development in the region.

The project is not expected to cause significant adverse social, economic, or environmental impacts at a level that would warrant an environmental impact statement (EIS). Mitigation measures have been identified to minimize anticipated adverse impacts of the Recommended Build Alternative. Therefore, unless significant impacts are identified during the public review of this EA, a FONSI for the Recommended Build Alternative will be requested from the FHWA. The FONSI would provide environmental authorization for final design, right-of-way acquisition, and construction of the I-10/I-25 Interchange Improvements.

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9.0 LIST OF PREPARERS

Denise Weston, AICP
Senior Environmental Planner
Parametrix
1155 South Telshor Boulevard, Suite 204
Las Cruces, NM 88011

Sue Muir, PhD
Environmental Consultant/Technical Writer
Parametrix
1155 South Telshor Boulevard, Suite 204
Las Cruces, NM, 88011

John Taschek, AICP
Principal Environmental Planner
Parametrix
8901 Adams NE, Suite D
Albuquerque, NM 87113

Jim Nellessen, PhD
Senior Biologist
Parametrix
8901 Adams NE, Suite D
Albuquerque, NM 87113

Berenika Byszewski
Cultural Resource Principal Investigator
Parametrix
8901 Adams NE, Suite D
Albuquerque, NM 87113

Jerry Paz, PE
Vice President-Las Cruces Branch Manager
Molzen-Corbin and Associates
1155 Commerce Drive, Suite F
Las Cruces, NM 88011

10.0 ACRONYMS AND ABBREVIATIONS

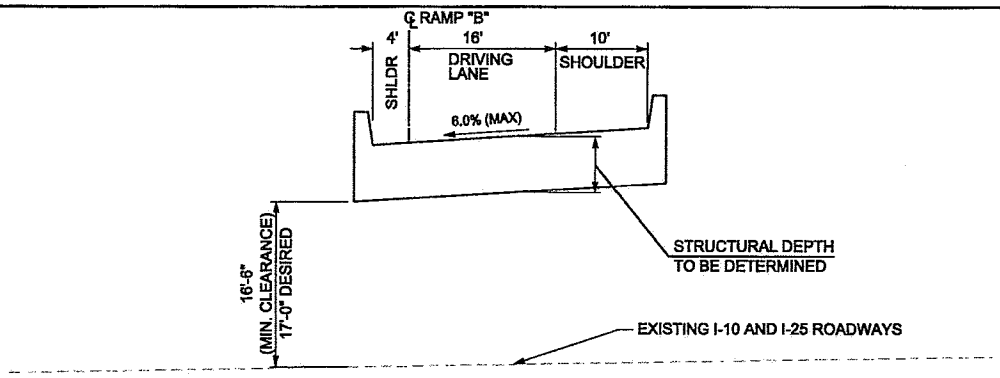
AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ACEC	Area of Critical Environmental Concern
APE	Area of Potential Effects
ARMS	Archaeological Records Management Section
ASTM	American Society for Testing and Materials
BLM	Bureau of Land Management
BMP	Best Management Practice
BNSF	Burlington Northern Santa Fe
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CME	Construction and Maintenance Easements
CO	carbon monoxide
CSD	Context Sensitive Design
CSS	Context Sensitive Solutions
CWA	Clean Water Act
dBA	A-weighted decibels
EA	Environmental Assessment
EB	eastbound
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
GRIP	Governor Richardson's Investment Partnership
IO	Isolated Occurrence
ISA	Initial Site Assessment
LUST`	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MP	Mile Post
MPO	Metropolitan Planning Organization
MTP	Metropolitan Transportation Plan
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NB	northbound
NEAP	Natural Events Action Plan
NEPA	National Environmental Policy Act
NMDA	New Mexico Department of Agriculture
NMDGF	New Mexico Department of Game and Fish
NMDOT	New Mexico Department of Transportation

NMED	New Mexico Environment Department
NMED-GWQB	New Mexico Environment Department – Ground Water Quality Bureau
NMED-SWQB	New Mexico Environment Department – Surface Water Quality Bureau
NMEMNRD	New Mexico Energy, Minerals, and Natural Resources Department
NMNHP	New Mexico Natural Heritage Program
NMSLO	New Mexico State Land Office
NMSRCP	New Mexico State Register of Cultural Properties
NMSU	New Mexico State University
NO_2	nitrogen dioxide
NOI	Notice of Intent
NPDES	National Pollutant and Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O_3	ozone
OGFC	Open Graded Friction Course
Pb	lead
PIP	Public Involvement Plan
PM	particulate matter
PSI	Preliminary Site Investigation
SACC	Scenic Area of Critical Concern
SB	southbound
SCRTD	South-Central Regional Transit District
SHPO	State Historic Preservation Officer
SLO	State Land Office
SO_2	sulfur dioxide
SRMA	Special Recreation Management Area
SWPPP	Storm Water Pollution Prevention Plan
TCP	Temporary Construction Permits
TESCP	Temporary Erosion and Sediment Control Plan
TNM	Traffic Noise Model
TxDOT	Texas Department of Transportation
USACE	United States Army Corps of Engineers
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VRM	Visual Resource Management
WB	westbound
WSMR	White Sands Missile Range

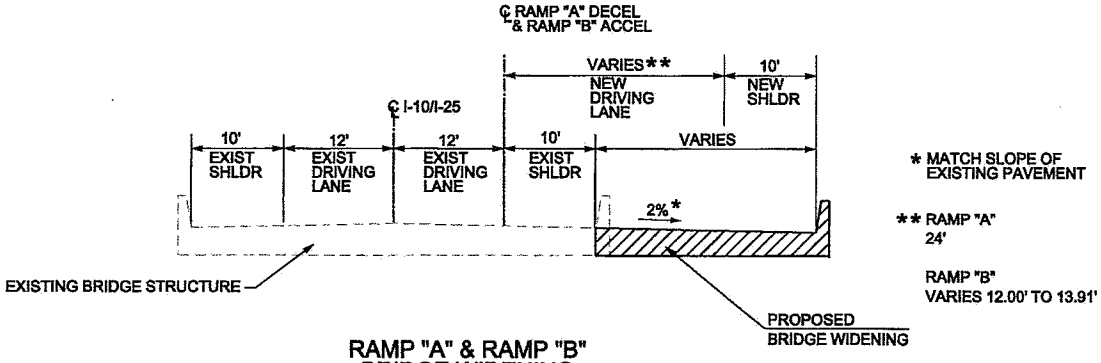
APPENDIX A

Typical Sections

NEW MEXICO PROJECT NO.	SHEET NO.
HPP-010-2(127)144 CN: 1100030	2-8



RAMP "B" BRIDGES OVER I-10 AND I-25 ROADWAYS



* MATCH SLOPE OF EXISTING PAVEMENT

** RAMP "A" 24'

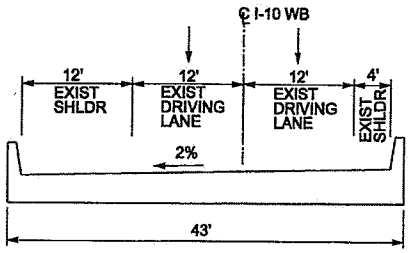
RAMP "B" VARIES 12.00' TO 13.91'

RAMP "A" & RAMP "B" BRIDGE WIDENING I-25 OVER CHOLLA RD

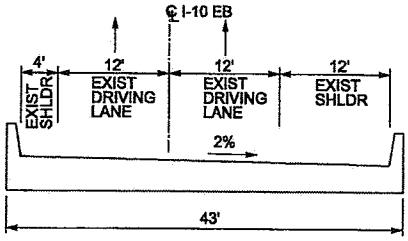
NEW MEXICO DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL SECTIONS
RAMP "A" & "B" BRIDGE WIDENING
RAMP "B" BRIDGES

HPP-010-2(127)144
CN: 1100030



I-10 WB BRIDGE
OVER I-25 SB

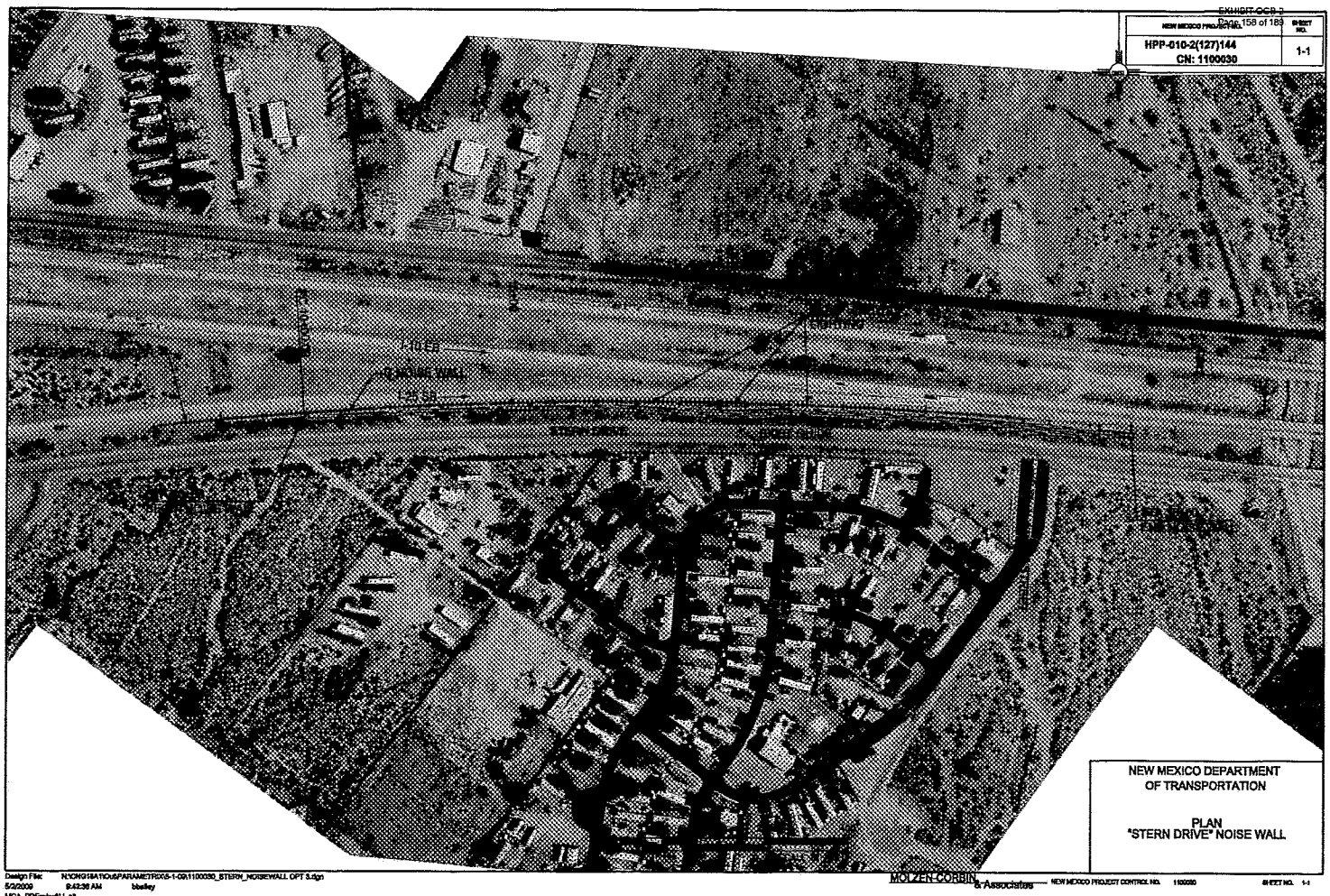


I-10 WB BRIDGE
OVER I-25 SB

NEW MEXICO DEPARTMENT
OF TRANSPORTATION

INTERSTATE 10
OVER INTERSTATE 25 SB
BRIDGE TYPICAL SECTIONS

NEW MEXICO PROJECT NO.	SHEET NO.
HPP-010-2(127)144 CN: 1100030	1-1



NEW MEXICO DEPARTMENT OF TRANSPORTATION

PLAN
"STERN DRIVE" NOISE WALL

Design File: N:\ONGI\&A\TIOUS\PARAMETROS-1-09\1100030_STERN_NOISEWALL OPT 3.dgn
5/2/2009 9:42:36 AM bbailey
MCA_PDFcolorALL.plt

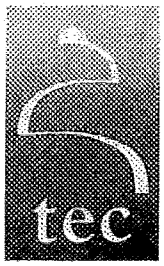
MOLZEN-CORBIN & Associates

NEW MEXICO PROJECT CONTROL NO. 1100030

SHEET NO. 1-1

APPENDIX B

Agency Corresondence



Taschek Environmental Consulting
Las Cruces Office
1155 S. Telshor Blvd, Suite 204
Las Cruces, NM 88011
Phone: (505) 522-7400 FAX: (505) 532-9792

September 22, 2005

RE: I-10 Corridor Study in Doña Ana County, New Mexico

Taschek Environmental Consulting, under contract with the New Mexico Department of Transportation, and in cooperation with the Federal Highway Administration, is preparing a corridor study along Interstate 10 (I-10) in Doña Ana County between the I-10/I-25 interchange in the City of Las Cruces, New Mexico and the New Mexico/Texas State Line. As part of the Governor Richardson's Investment Partnership (GRIP) program, the I-10 Corridor Study will include analysis of the frontage road system and several key interchanges (I-25, Mesquite, Vado, and NM 404) within the project termini, as well as consider issues such as traffic capacity, public transportation, drainage, and safety.

Given the regional importance of the I-10 corridor, it is valuable to collect information from all agencies and organizations that may be impacted by future improvements to the facility. An extensive public and agency input process has been initiated to identify elements to be considered as part of the corridor study. This letter is to invite submission of any comments or information relating to potential effects from the project on the physical, social, or economic environment in the area.

Taschek Environmental Consulting would appreciate your response within 30 days to the TEC Las Cruces Office. If you need further information or wish to discuss the project, please contact me at (505) 522-7400 or email me at tecdenise@aol.com.

Sincerely,

Denise Weston, Environmental Planner

Attachments: map

Mr. Gedi Cibas
NM Environment Department
Program Support Bureau
PO BOX 953
Santa Fe, NM 87504

Mr. Jerry Schoeppner
Ground Water Quality Bureau
New Mexico Environment Department
P.O. Box 26110
Santa Fe, NM 87504

Mr. James Mace
US Army Corps of Engineers
El Paso Regulatory Office
PO Box 6096
Fort Bliss, TX 79906-0096

Mr. Robert Armijo
Dona Ana County
2025 E. Griggs
Las Cruces, NM 88001

Jim Davis
Petroleum Storage Tank Bureau
NM Environment Department
PO Box 26110
Santa Fe, NM 87504

Ms. Elaine Pacheco
Office of the State Engineer
PO Box 25102
Santa Fe, NM 87504

Mr. Fernando Martinez
Drinking Water Bureau
NM Environment Department
PO Box 26110
Santa Fe, NM 87504

Mr. Charles Berry
TxDOT
13301 Gateway West
El Paso, TX 79928

Mr. Ricardo Dominquez
El Paso MPO
10767 Gateway Blvd West Ste 605
El Paso , TX 79935

Mr.George Sarmiento
City of El Paso
2 Civic Center Plaza
El Paso , TX 79901

Ms. Marcy Leavitt
Surface Water Quality Bureau
New Mexico Environment Department
P.O. Box 26110
Santa Fe, NM 8750

Ms. Gail Cooke
NMED, Air Quality Bureau
2048 Galisteo Street
Santa Fe, NM 87505

Mr. Paul Dugie
Dona Ana County Flood Commission
251 W. Amador
Las Cruces, NM 88001

Ms. Elizabeth Bernal
South Central Council of Governments
PO BOX 1072
Elephant Butte, NM 87935

Mr. Robert Sivinski
NM Energy, Minerals & Natural Resources
PO Box 1948
Santa Fe, NM 87504

Mr. Patrick Lyons
NM State Land Office
PO Box 1148
Santa Fe, NM 87504-1148

Ms. Cindy Padilla
Solid Waste Bureau
NM Environment Department
PO Box 26110
Santa Fe, NM 87504

Mr. Tim Saunders
BLM
1800 Marquez
Las Cruces , NM 88005

Mr. Robert Garza
Public Works Director
City of Las Cruces
PO Box 20000
Las Cruces , NM 88004

Ms. Mary Sanchez
US Department of Agriculture
Natural Resources Conservation Service
2507 N. Telshor Drive #1
Las Cruces, NM 88011

Mr. Richard Greene
U.S. Environmental Protection Agency
Region 6
1445 Ross Ave Suite 1200
Dallas, TX 75202-2733

Mr. McMahon Chuck
Dona Ana County
Planning Department
430 S. Main
Las Cruces, NM 88001

Ms. Janell Ward
NM Department of Game and Fish
PO Box 25112
Santa Fe, NM 87504

Ms. Joy Nicholopoulos
US Fish and Wildlife Service
NM Ecological Services Field Office
2105 Osuna NE
Albuquerque, NM 87113

Mr. John Sharson
Burlington Northern Santa Fe Railroad
740 E. Carnegie
San Bernadino, CA 92408

Mr. Tom Murphy
Las Cruces MPO
PO Box 20000
Las Cruces, NM 88004

Mr. Bob Geyer
El Paso County
500 E. San Antonio Ste 404
El Paso , TX 79901

Mr. Mark Longenbaugh
TxDOT
13301 Gateway West
El Paso, TX 79928

Subj: **Various Dona Ana County Projects**
Date: 11/8/2005 2:28:01 PM Mountain Standard Time
From: James.E.Mace@spa02.usace.army.mil
To: tecdenise@aol.com
Sent from the Internet (Details)

Hello Denise,

The following are my comments on the three letters you submitted, dated September 22, 2005, regarding various projects in Dona Ana County, New Mexico:

Dona Ana County Roads:
Church Street
Mark Twain, Hanna Court, Bradbury Avenue, and Post Street

After a review of both of these projects, with the information provided and other information, as applicable, neither project appears to discharge dredged or fill materials into waters of the United States. As such, a Department of the Army permit would not be required for either of these proposed projects.

Reconstruction of Lohman Avenue
Las Cruces, Dona Ana County, New Mexico

This proposed project appears to cross the Las Cruces Arroyo, which may be a jurisdictional water of the Unites States at this location. Additionally, the proposed project references the relocation of a storm drain to the Las Cruces Arroyo. If portions of the construction proposed for this project would require the discharge of dredged or fill materials within the ordinary high water mark of the Las Cruces Arroyo, a Department of the Army permit may be required. Please contact my office with additional details of any specific filling activities within the Las Cruces Arroyo, if applicable.

I-10 Corridor Study in Dona Ana County, New Mexico

This project will likely require bridge and culvert replacement, depending on the final design. Please be advised the replacement of these types of structures, allowing tributaries of the Rio Grande to drain to the Rio Grande, would likely require a Department of the Army Permit. If/when you have specific questions about individual crossings to be replaced and/or design concerns about such crossings, please feel free to contact my office.

Thank you for the opportunity to comment on these proposed projects. If you have any additional questions, please do not hesitate to telephone or email me.

Jim

James E. Mace
Chief, El Paso Regulatory Office
U.S. Army Corps of Engineers
Albuquerque District
P.O. Box 6096
Fort Bliss, Texas 79906-0096
phone (915) 568-1359
fax (915) 568-1348
james.e.mace@usace.army.mil

Form 1

Taschek Environmental Consulting
Las Cruces Office
1155 S. Telshor Blvd, Suite 204
Las Cruces, NM 88011
Phone: (505) 522-7400 FAX: (505) 532-9792

#10392 MW 10/22/05

September 22, 2005

Ms. Janell Ward
NM Department of Game and Fish
PO Box 25112
Santa Fe, NM 87504

RE: I-10 Corridor Study in Doña Ana County, New Mexico

Dear Ms. Ward,

Taschek Environmental Consulting, under contract with the New Mexico Department of Transportation, and in cooperation with the Federal Highway Administration, is preparing a corridor study along Interstate 10 (I-10) in Doña Ana County between the I-10/I-25 interchange in the City of Las Cruces, New Mexico and the New Mexico/Texas State Line. As part of the Governor Richardson's Investment Partnership (GRIP) program, the I-10 Corridor Study will include analysis of the frontage road system and several key interchanges (I-25, Mesquite, Vado, and NM 404) within the project termini, as well as consider issues such as traffic capacity, public transportation, drainage, and safety.

Given the regional importance of the I-10 corridor, it is valuable to collect information from all agencies and organizations that may be impacted by future improvements to the facility. An extensive public and agency input process has been initiated to identify elements to be considered as part of the corridor study. This letter is to invite submission of any comments or information relating to potential effects from the project on the physical, social, or economic environment in the area.

Taschek Environmental Consulting would appreciate your response within 30 days to the TEC Las Cruces Office. If you need further information or wish to discuss the project, please contact me at (505) 522-7400 or email me at tecdenise@aol.com.

Sincerely,

Denise Weston

Denise Weston, Environmental Planner

Attachments: map

GOVERNOR
Bill Richardson

DIRECTOR AND SECRETARY
TO THE COMMISSION
Bruce C. Thompson

STATE OF NEW MEXICO
DEPARTMENT OF GAME & FISH

One Wildlife Way
Post Office Box 25112
Santa Fe, NM 87504
Phone: (505) 476-8008
Fax: (505) 476-8128

Visit our website at www.wildlife.state.nm.us
For basic information or to order free publications: 1-800-862-9310.

October 26, 2005

Denise Weston, Environmental Planner
Taschek Environmental Consulting
1155 S. Telshor Blvd. Suite 204
Las Cruces, NM 88011

Re: I-10 Corridor Study in Dona Ana County, New Mexico
NMGF No. 10392

Dear Ms. Weston,

In response to your letter dated September 22, 2005, regarding the above referenced project, the Department of Game and Fish (Department) does not anticipate significant impacts to wildlife or sensitive habitats. For your information, we have enclosed a list of sensitive, threatened and endangered species that occur in Dona Ana County.

For more information on listed and other species of concern, contact the following sources:

1. Species Accounts: http://fwie.fw.vt.edu/states/nm.htm
2. Species Searches: http://nmnhp.unm.edu/bisonm/bisonquery.php
3. New Mexico Wildlife of Concern by Counties List: http://www.wildlife.state.nm.us/conservation/share_with_wildlife/documents/speciesofconcern.pdf
4. Habitat Handbook Project Guidelines: http://wildlife.state.nm.us/conservation/habitat_handbook/index.htm
5. For custom, site-specific database searches on plants and wildlife. Go to Data then to Free On-Line Data and follow the directions go to: http://nmnhp.unm.edu
6. New Mexico State Forestry Division (505-827-5830) or http://nmrareplants.unm.edu/index.html for state-listed plants
7. For the most current listing of federally listed species **always** check the U.S. Fish and Wildlife Service at (505-346-2525) or http://ifw2es.fws.gov/EndangeredSpecies/lists/ .

Thank you for the opportunity to review and comment on your project. If you have any questions, I can be contacted at (505) 476-8101 or janell.ward@state.nm.us.

Sincerely,

Janell Ward

Janell Ward, Assistant Chief
Conservation Services Division

JW/ttd
xc: Susan MacMullin, New Mexico Ecological Services, USFWS
Luis Rios, SW Area Operations Chief, NMGF
Pat Mathis, SW Area Habitat Specialist, NMGF

New Mexico Species of Concern - Dona Ana County

Common Name	SCIENTIFIC NAME	FWS. ESA	NM... WCA	FS. R3	BLM.. NM	NM... Sen	FWS. SOC
Northern Leopard Frog	Rana pipiens	-	-	s	-	-	-
Bleached Earless Lizard	Holbrookia maculata ruthveni	-	-	-	-	s n	-
Texas Horned Lizard	Phrynosoma cornutum	-	-	s	s	-	-
White Sands Prairie Lizard	Sceloporus undulatus cowlesi	-	-	-	-	s n	-
Little White Whiptail	Cnemidophorus gypsi	-	-	-	-	s n	-
Desert Kingsnake	Lampropeltis getula splendida	-	-	s	-	-	-
Brown Pelican (no data)	Pelecanus occidentalis carolinensis	E	E	s	-	-	-
Neotropic Cormorant	Phalacrocorax brasilianus	-	T	s	-	-	-
American Bittern	Botaurus lentiginosus	-	-	s	-	-	-
Great Egret	Ardea alba egretta	-	-	s	-	-	-
Snowy Egret	Egretta thula brewsteri	-	-	s	-	-	-
Green Heron	Butorides virescens	-	-	s	-	-	-
Black-crowned Night-Heron	Nycticorax nycticorax hoactli	-	-	s	-	-	-
White-faced Ibis	Plegadis chihi	-	-	s	s	-	-
Osprey	Pandion haliaetus carolinensis	-	-	s	-	-	-
White-tailed Kite (no data)	Elanus caeruleus majusculus	-	-	s	-	-	-
Mississippi Kite	Ictinia mississippiensis	-	-	s	-	-	-
Bald Eagle	Haliaeetus leucocephalus	AD,T mg	T	s	-	-	-
Northern Goshawk	Accipiter gentilis	-	-	s	s	s	s
Common Black-Hawk	Buteogallus anthracinus anthracinus	-	T	s	-	-	-
Swainson's Hawk	Buteo swainsoni	-	-	s	-	-	-
Ferruginous Hawk	Buteo regalis	-	-	s	s	-	-
Aplomado Falcon	Falco femoralis septentrionalis	E mg	E	s	-	-	-
American Peregrine Falcon	Falco peregrinus anatum	DM m	T	s	-	-	s
Sora	Porzana carolina	-	-	s	-	-	-
Whooping Crane	Grus americana	EXPN,E mg	E	s	-	-	-
Western Snowy Plover	Charadrius alexandrinus nivosus	-	-	s	-	-	-
Mountain Plover	Charadrius montanus	PT	-	s	-	s	-
Black-necked Stilt	Himantopus mexicanus	-	-	s	-	-	-
Long-billed Curlew	Numenius americanus americanus	-	-	s	-	-	-
Interior Least Tern	Sterna antillarum athalassos	E mg	E	s	-	-	-
Black Tern	Chlidonias niger surinamensis	-	-	-	s	-	s
Common Ground-dove	Columbina passerina pallescens	-	E	s	-	-	-
Burrowing Owl	Athene cunicularia hypugaea	-	-	-	s	-	s
Mexican Spotted Owl	Strix occidentalis lucida	T hmg	-	s	-	s	-
Yellow-billed Cuckoo	Coccyzus americanus occidentalis	C	-	s	-	s	-
Broad-billed Hummingbird	Cynanthus latirostris magicus	-	T	s	-	-	-
Costa's Hummingbird	Calypte costae	-	T	s	-	-	-
Belted Kingfisher	Ceryle alcyon	-	-	s	-	-	-
Southwestern Willow Flycatcher	Empidonax traillii extimus	E h	E	s	-	-	-
Loggerhead Shrike	Lanius ludovicianus	-	-	-	s	s	-
Bell's Vireo	Vireo bellii	-	T	s	-	-	s
Gray Vireo	Vireo vicinior	-	T	s	-	-	-
Gray Catbird	Dumetella carolinensis ruficrissa	-	-	s	-	-	-
American Redstart	Setophaga ruticilla tricolora	-	-	s	-	-	-
Baird's Sparrow	Ammodramus bairdii	-	T	s	s	-	s
Varied Bunting	Passerina versicolor	-	T	s	-	-	-
Western Small-footed Myotis Bat	Myotis ciliolabrum melanorhinus	-	-	-	s	s	-
Yuma Myotis Bat	Myotis yumanensis yumanensis	-	-	-	s	s	-
Occult Little Brown Myotis Bat	Myotis lucifugus occultus	-	-	s	s	s	-
Long-legged Myotis Bat	Myotis volans interior	-	-	-	s	s	-
Fringed Myotis Bat	Myotis thysanodes thysanodes	-	-	-	s	s	-

New Mexico Species of Concern - Dona Ana County

Common Name	SCIENTIFIC NAME	FWS. ESA	NM... WCA	FS. R3	BLM.. NM	NM... Sen	FWS. SOC
Western Red Bat	Lasiurus blossevillii	-	-	s	-	s	s
Eastern Red Bat	Lasiurus borealis	-	-	s	-	s	-
Spotted Bat	Euderma maculatum	-	T	s	s	-	s
Pale Townsend's Big-eared Bat	Plecotus townsendii pallescens	-	-	s	s	s	-
Big Free-tailed Bat	Nyctinomops macrotis	-	-	-	s	s	-
Organ Mountains Colorado Chipmunk	Tamias quadrivittatus australis	-	T	-	s	-	s
Desert Pocket Gopher	Geomys arenarius arenarius	-	-	-	s	-	s
Desert Pocket Gopher	Geomys arenarius brevirostris	-	-	-	-	s n	-
Rock Pocket Mouse	Chaetodipus intermedius rupestris	-	-	-	-	s	-
Pecos River Muskrat	Ondatra zibethicus ripensis	-	-	-	s	s	s
Red Fox	Vulpes vulpes	-	-	-	-	s	-
Ringtail	Bassariscus astutus	-	-	s	-	s	-
Western Spotted Skunk	Spilogale gracilis	-	-	-	-	s	-
Common Hog-nosed Skunk	Conepatus mesoleucus	-	-	-	-	s	-
Chihuahuan Pronghorn	Antilocapra americana mexicana	-	-	s	-	n	-
Desert Bighorn Sheep	Ovis canadensis mexicana (endangered pops)	-	E	s	-	n	-
Dona Ana Talussnail	Sonorella todseni	-	T	-	s	n	s
Anthony Blister Beetle	Lytta mirifica	-	-	-	s	s	s
Obsolete Viceroy Butterfly	Basilarchia archippus obsoleta	-	-	s	-	-	s

NATIVE SPECIES APPARENTLY NO LONGER OCCURRING IN DONA ANA COUNTY

American Eel	Anguilla rostrata	(extirpated from NM)
Mexican Tetra	Astyanax mexicanus	
Rio Grande Chub	Gila pandora	
Rio Grande Silvery Minnow	Hybognathus amarus	
Rio Grande Shiner	Notropis jemezanus	
Rio Grande Bluntnose Shiner	Notropis simus simus	(extinct)
Gray Redhorse	Moxostoma congestum	
Flathead Catfish	Pylodictis olivaris	
Blue Sucker	Cycleptus elongatus	
Arizona Black-tailed Prairie Dog	Cynomys ludovicianus arizonensis	
Mexican Gray Wolf	Canis lupus baileyi	
Swift Fox	Vulpes velox velox	
Grizzly Bear	Ursus arctos	(extirpated from NM)
Jaguar	Panthera onca arizonensis	
American Bison	Bos bison	
NM Ramshorn Snail	Pecosorbis kansasensis	
Ovate Vertigo Snail	Vertigo ovata	

Subj: **I-10 corridor**
Date: 10/6/2005 1:14:16 PM Mountain Daylight Time
From: robert.sivinski@state.nm.us
To: tecdenise@aol.com
Sent from the Internet (Details)

Hi Denise:

Just got your letter dated 22 September 2005 concerning the I-10 corridor study in Dona Ana County. Just wanted to let you know that this corridor goes through a population of Opuntia arenaria (dune pricklypear), which is on the State of New Mexico's list of endangered plant species. You can find more details on the NM Rare Plants web site at http://nmrareplants.unm.edu/

Bob Sivinski
EMNRD-Forestry Division
476-3347

L A S C R U C E S D O N A A N A L L A

METROPOLITAN
PLANNING ORGANIZATION

P.O. BOX 20000 | LAS CRUCES NM | 88004
PHONE (505) 528-3222 | FAX (505) 528-3155

October 20, 2005
MPO-05-017

Denise Weston
Tascheck Environmental Consulting
Las Cruces Office
1155 South Telshor Boulevard, Suite 204
Las Cruces, NM 88011

RE: GRIP I-10 Study Process

Dear Ms. Weston,

Thank you for considering the input of the Las Cruces Metropolitan Planning Organization in the GRIP I-10 study process. We have a number of issues that we would like to raise at the beginning of the process.

Interchange Placement and East/West Corridors. The MPO has recently expanded its jurisdictional boundaries. The boundaries previously coincided with the Extra-Territorial Zone (ETZ) of the City of Las Cruces. The boundaries now extend farther south into Dona Ana County to the Berino area. The recently added land has been designated as a "study area". We will soon be assigning functional classifications to roadways, and developing a thoroughfare plan, bicycle facilities plan, and trail plan for the area. East/west connections linking the Rio Grande agricultural valley to I-10 and possible future development east of the interstate are of great importance, and will depend to a great extent on locations and designs of interchanges. Please consult us when this matter is studied in detail, so that any recent developments in the MPO planning process may be taken into account.

Multi-Modal Frontage Roads. Stern Dr and Las Alturas Rd have been designated as having planned bicycle lanes from their northern termini south to the ETZ boundary. It can be expected that this designation will continue south to the new MPO boundary when the bicycle facility plan is updated through the boundary expansion study. Therefore, we would expect that the frontage roads have 4' shoulders at minimum. If these shoulders have rumble strips, they should be as close to the line as possible, and should have frequent gaps to allow cyclists to enter the motor vehicle lane safely if necessary to avoid debris on the shoulder.

We would also like you to consider the possibility of constructing a 10' multi-use path between the frontage roads and the interstate. The Triviz multi-use path along I-25 covers about 5 miles within the city and is very heavily used. The advantage of constructing such paths along interstates is that the number of conflict points between path users and motor vehicle traffic is substantially reduced. We are particularly interested in the Stern Dr side, from Mesquite north. Northbound cyclists on I-10 are currently directed to exit at Mesquite. A multi-use path along Stern could allow them to continue their journey north and eventually link to the La Llorona multi-use path that follows the Rio Grande west of Las Cruces, or to link with the soon to be designated state bicycle route along US-70. Since it is unlikely that sidewalks will be built along the frontage roads, a multi-use path would also accommodate pedestrians moving among existing and future subdivisions in the area. Design of the path would coincide with design of interchanges and over/underpasses, so cost would be minimized.

Special Use Lane. If the corridor study concludes that an additional lane should be added to I-10, we believe designation as a special use lane for transit, HOV, and possibly alternative fuels/hybrid vehicles should be given serious consideration. The MPO is coordinating the certification of a Regional Transit District in south central New Mexico, and one possible result of this effort is intercity bus service between Las Cruces and El Paso. If this service is successful, it will remove cars from the corridor during peak periods, as well as offer commuters a way to avoid the economic burden of increasing gasoline prices. However, in order to be viable, it needs to be fast, and a dedicated lane could help it avoid major congestion. A lane dedicated only to buses would result in underutilization of capacity, so we propose that is would be open to all vehicles carrying two or more passengers. Encouraging carpooling accomplishes the same goals as the transit service, albeit on a more modest scale. If a suitable registration process could be instituted in NM and TX, hybrid or alternative fuel vehicles may be allowed to use the lane as well. Such a special use facility would help to encourage fuel conservation and commuting alternatives, which is of great economic importance due to ever increasing and highly volatile fuel prices, as well as the significant anticipated development along the corridor.

We look forward to updates in the I-10 planning process and appreciate the opportunity to contribute.

Sincerely,

Tom Murphy, AICP
MPO Officer

/ph

Form 1

Taschek Environmental Consulting
Las Cruces Office
1155 S. Telshor Blvd, Suite 204
Las Cruces, NM 88011
Phone: (505) 522-7400 FAX: (505) 532-9792

#10392 NW 10/22/05

September 22, 2005

Ms. Janell Ward
NM Department of Game and Fish
PO Box 25112
Santa Fe, NM 87504

RE: I-10 Corridor Study in Doña Ana County, New Mexico

Dear Ms. Ward,

Taschek Environmental Consulting, under contract with the New Mexico Department of Transportation, and in cooperation with the Federal Highway Administration, is preparing a corridor study along Interstate 10 (I-10) in Doña Ana County between the I-10/I-25 interchange in the City of Las Cruces, New Mexico and the New Mexico/Texas State Line. As part of the Governor Richardson's Investment Partnership (GRIP) program, the I-10 Corridor Study will include analysis of the frontage road system and several key interchanges (I-25, Mesquite, Vado, and NM 404) within the project termini, as well as consider issues such as traffic capacity, public transportation, drainage, and safety.

Given the regional importance of the I-10 corridor, it is valuable to collect information from all agencies and organizations that may be impacted by future improvements to the facility. An extensive public and agency input process has been initiated to identify elements to be considered as part of the corridor study. This letter is to invite submission of any comments or information relating to potential effects from the project on the physical, social, or economic environment in the area.

Taschek Environmental Consulting would appreciate your response within 30 days to the TEC Las Cruces Office. If you need further information or wish to discuss the project, please contact me at (505) 522-7400 or email me at tecdenise@aol.com.

Sincerely,

Denise Weston

Denise Weston, Environmental Planner

Attachments: map

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 Osuna NE
Albuquerque, New Mexico 87113
Phone: (505) 346-2525 Fax: (505) 346-2542

October 17, 2005

Ms. Denise Weston
Taschek Environmental Consulting
1155 South Telshor Boulevard, Suite 204
Las Cruces, New Mexico 88011

Dear Ms. Weston:

Thank you for your recent requests for information on threatened or endangered species or important wildlife habitats that may occur in your project areas. The New Mexico Ecological Services Field Office has posted lists of the endangered, threatened, proposed, candidate and species of concern occurring in all New Mexico Counties on the Internet. Please refer to the following web page for species information in the county where your project occurs: http://ifw2es.fws.gov/NewMexico/SBC_intro.cfm. If you do not have access to the Internet or have difficulty obtaining a list, please contact our office and we will mail or fax you a list as soon as possible.

After opening the web page, find New Mexico Listed and Sensitive Species Lists on the main page and click on the county of interest. Your project area may not necessarily include all or any of these species. This information should assist you in determining which species may or may not occur within your project area.

Under the Endangered Species Act, as amended (Act), it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with us further. Similarly, it is their responsibility to determine if a proposed action has no effect to endangered, threatened, or proposed species, or designated critical habitat. If your action area has suitable habitat for any of these species, we recommend that species-specific surveys be conducted during the flowering season for plants and at the appropriate time for wildlife to evaluate any possible project-related impacts. Please keep in mind that the scope of federally listed species compliance also includes any interrelated or interdependent project activities (e.g., equipment staging areas, offsite borrow material areas, or utility relocations) and any indirect or cumulative effects.

Candidates and species of concern have no legal protection under the Act and are included on the web site for planning purposes only. We monitor the status of these species. If significant declines are detected, these species could potentially be listed as endangered or threatened. Therefore, actions that may contribute to their decline should be avoided. We recommend that candidates and species of concern be included in your surveys.

Also on the web site, we have included additional wildlife-related information that should be considered if your project is a specific type. These include communication towers, power line safety for raptors, road and highway improvements and/or construction, spring developments and livestock watering facilities, wastewater facilities, and trenching operations.

Under Executive Orders 11988 and 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and floodplains, and preserve and enhance their natural and beneficial values. We recommend you contact the U.S. Army Corps of Engineers for permitting requirements under section 404 of the Clean Water Act if your proposed action could impact floodplains or wetlands. These habitats should be conserved through avoidance, or mitigated to ensure no net loss of wetlands function and value.

The Migratory Bird Treaty Act (MBTA) prohibits the taking of migratory birds, nests, and eggs, except as permitted by the U.S. Fish and Wildlife Service. To minimize the likelihood of adverse impacts to all birds protected under the MBTA, we recommend construction activities occur outside the general migratory bird nesting season of March through August, or that areas proposed for construction during the nesting season be surveyed, and when occupied, avoided until nesting is complete.

We suggest you contact the New Mexico Department of Game and Fish, and the New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division for information regarding fish, wildlife, and plants of State concern.

Thank you for your concern for endangered and threatened species and New Mexico's wildlife habitats. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area.

Sincerely,

Brian Hanson

Brian Hanson
Acting Field Supervisor

State of New Mexico
ENVIRONMENT DEPARTMENT
Office of the Secretary
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
Telephone (505) 827-2855

BILL RICHARDSON
GOVERNOR

RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 22, 2005

Denise Weston
Environmental Planner
Taschek Environmental Consulting
1155 S. Telshor Blvd., Suite 204
Las Cruces, NM 88011 fax: 505.532.9792

Dear Ms. Weston.

RE: DONA ANA COUNTY: I-10 CORRIDOR STUDY: ADDENDUM

These comments on *air quality* issues are being provided as an addendum to those that were submitted to you in our November 1, 2005 correspondence in reference to the above-mentioned project.

Air Quality

The proposed project I-10 Corridor Study is located in Anthony, New Mexico. Anthony is currently considered to be in nonattainment with the National Ambient Air Quality Standards (NAAQS) for PM10. The New Mexico State Department of Transportation (NMDOT) will need to consult with the Federal Department Of Transportation and the U.S. Environmental Protection Agency (U.S.EPA) Region 6 to determine if a transportation conformity plan is needed for the proposed project.

The Town of Anthony is located in Doña Ana County, New Mexico. Doña Ana County is currently considered to be in attainment with the NAAQS; however, the New Mexico Environment Department (NMED) Air Quality Bureau (AQB) has recorded exceedances of the standard for PM10. In response to the recorded exceedances of the standard for PM10, a Natural Events Action Plan (NEAP) for Doña Ana County has been prepared and submitted to the U.S.EPA for approval. As part of the NEAP, NMDOT has signed a memorandum of agreement (MOU) with the NMED in support for the NEAP. This MOU needs to be referenced in the environmental documentation for this project. In accordance with the MOU, appropriate dust control techniques may also need to be addressed.

Along with the requirements of the MOU, applicable local or county regulations requiring dust control should also be followed during construction activities to minimize the release of particulates during the proposed project. Areas disturbed by construction activities, within and adjacent to the project area, should be reclaimed to avoid long-term problems with erosion and fugitive dust.

All asphalt, concrete, quarrying, crushing and screening facilities contracted in conjunction with the proposed project, I-10 Corridor Study, must have current and proper air quality permits. For more information on air quality permitting and modeling requirements, please refer to 20.2.72 NMAC.

We appreciate the opportunity to comment on this project.

Sincerely,

Gedi Cibas, Ph.D.
Environmental Impact Review Coordinator

Addendum: NMED File No. 2185ER

State of New Mexico
ENVIRONMENT DEPARTMENT
Office of the Secretary
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
Telephone (505) 827-2855

BILL RICHARDSON
GOVERNOR

RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2005

Denise Weston
Environmental Planner
Taschek Environmental Consulting
1155 S. Telshor Blvd., Suite 204
Las Cruces, NM 88011 fax: 505.532.9792

Dear Ms. Weston:

RE: DONA ANA COUNTY: I-10 CORRIDOR STUDY

The New Mexico Environment Department (NMED) staff reviewed the information on the above-referenced document included in your September 22, 2005 correspondence to the Department. The review is based on the received correspondence.

Surface Water Quality

The U.S. Environmental Protection Agency (USEPA) requires National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) coverage for storm water discharges from construction projects (common plans of development) that will result in the disturbance (or re-disturbance) of one or more acres, including expansions, of total land area. Because this project exceeds one acre (including staging areas, etc.), it will require appropriate NPDES permit coverage prior to beginning construction (small, one - five acre, construction projects may be able to qualify for a waiver in lieu of permit coverage - see Appendix D).

Among other things, this permit requires that a Storm Water Pollution Prevention Plan (SWPPP) be prepared for the site and that appropriate Best Management Practices (BMPs) be installed and maintained both during and after construction to prevent, to the extent practicable, pollutants (primarily sediment, oil & grease and construction materials from construction sites) in storm water runoff from entering waters of the U.S. This permit also requires that permanent stabilization measures (revegetation, paving, etc.), and permanent storm water management measures (storm water detention/retention structures, velocity dissipation devices, etc.) be implemented post construction to minimize, in the long term, pollutants in storm water runoff from entering these waters. In addition, permittees must ensure that there is no increase in sediment yield and flow velocity from the construction site (both during and after construction) compared to pre-construction, undisturbed conditions (see Subpart 9.C.1)

You should also be aware that EPA requires that all "operators" (see Appendix A) obtain NPDES permit coverage for construction projects. Generally, this means that at least two parties will require permit coverage. The owner/developer of this construction project who has operational control over

project specifications (probably NMDOT in this case), the general contractor who has day-to-day operational control of those activities at the site, which are necessary to ensure compliance with the storm water pollution plan and other permit conditions, and possibly other "operators" will require appropriate NPDES permit coverage for this project.

The CGP was re-issued effective July 1, 2003 (see **Federal Register/Vol. 68, No. 126/Tuesday, July 1, 2003** pg. 39087). The CGP, Notice of Intent (NOI), Fact Sheet, and Federal Register notice can be downloaded at: http://cfpub.epa.gov/npdes/stormwater/cgp.cfm

In addition, under the NPDES Phase II Storm Water Regulations published in **Federal Register**/Vol. 64, No. 235/Wednesday, December 8, 1999, p.68722, USEPA requires that Dona Ana County and NMDOT obtain NPDES storm water permit coverage for their Municipal Separate Storm Sewer Systems (MS4) by March 10, 2003 in the Las Cruces and El Paso Urbanized Areas, of which this area is a part. This permit program requires that MS4 operators develop, implement, and enforce a storm water management program to reduce the discharge of pollutants from its MS4 to the "maximum extent practicable" and protect water quality. NMED strongly suggests that NMDOT and Dona Ana County examine the potential impacts to water quality and their ability to appropriately control pollutant loads from their storm sewer system during the review process for the subject, as well as all other, projects which may impact water quality.

Underground Storage Tanks

The Petroleum Storage Tank Bureau knows of two former or current tank facilities, neither of which has experienced a release, within the proposed project area for the I-10 corridor study in the City of Las Cruces. Some of the sites listed may not be affected by this project. Please check the local street address to see if this information applies. The contractors should remain alert for indications of soil or groundwater contamination in the vicinity of any of the listed sites.

If contaminated soil or water is encountered during construction, all monitoring, handling and disposal requirements must be met in order to protect workers, the public and the environment, from contaminants. You can contact the PST Bureau at 505 984-1741.

Tank Facility Name	Address	Leak Reported
Bella Vista 207	1195 N. Mesquite	No
Rio Grande Rock LLC	I-10 Mesquite Exit	No

We appreciate the opportunity to comment on this project.

Sincerely,

Gedi Cibas, Ph.D.
Environmental Impact Review Coordinator
NMED File No. 2185ER

Re: I-10 Corridor

Lori_Allen@nm.blm.gov [Lori_Allen@nm.blm.gov]

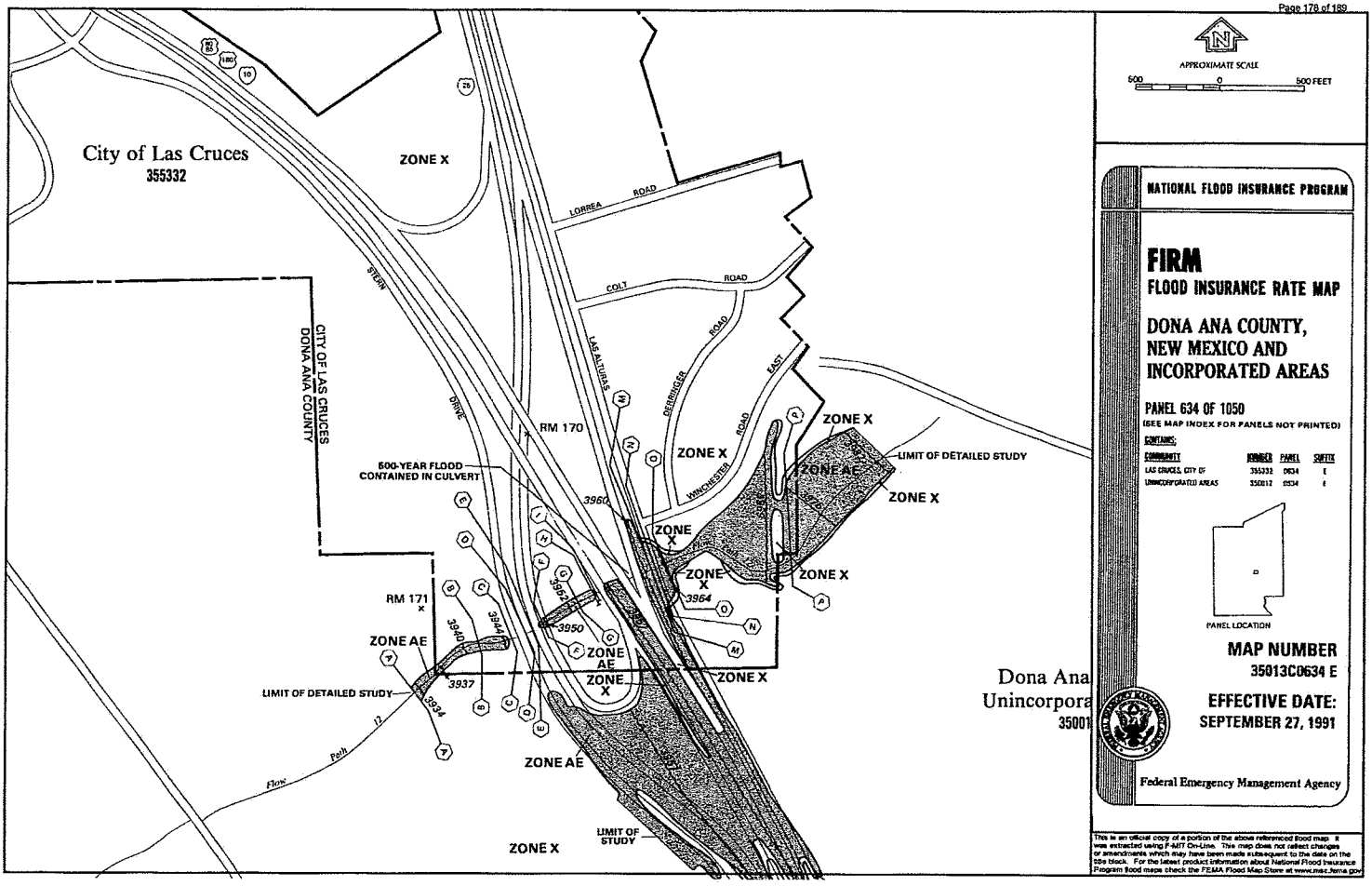
Sent: Monday, February 09, 2009 10:59 AM

To: Denise M. Weston

Denise,
Since I-10 in T. 25S., R. 3 and T. 26S., R. 3E is given to the NM Highway Dept. under the Federal Aid Highway Act, which is 317 of the act of August 27, 1958 and Section 107d , Title 23 U.S.C. the BLM will not be a permitting agency in the upgrade of I-10. The BLM does request that we are courtesty copied on the archaeology survey reports for our files. We appreciate you and your team keeping us informed on this project.

Thanks,
Lori

Lori Allen
Realty Specialist
USDOI- BLM- Las Cruces District Office
1800 Marquess Street
Las Cruces, NM 88005
(575) 525-4454 phone
(575)525-4412 fax
email: Lori_Allen@nm.blm.gov


City of Las Cruces
355332
ZONE X
LORREA ROAD
COLT ROAD
STERN DRIVE
CITY OF LAS CRUCES
DONA ANA COUNTY
LAS ACTUALES
DESBERGER ROAD
WINCHESTER ROAD
EAST
RM 170
500-YEAR FLOOD
CONTAINED IN CULVERT
3960
3962
3964
3950
ZONE AE
ZONE X
LIMIT OF DETAILED STUDY
RM 171
3940
3944
3937
3934
Flow Path 12
LIMIT OF STUDY
Dona Ana
Unincorpora
35001
APPROXIMATE SCALE
500 0 500 FEET
NATIONAL FLOOD INSURANCE PROGRAM
FIRM
FLOOD INSURANCE RATE MAP
DONA ANA COUNTY,
NEW MEXICO AND
INCORPORATED AREAS
PANEL 634 OF 1050
(SEE MAP INDEX FOR PANELS NOT PRINTED)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
LAS CRUCES, CITY OF 355332 0634 E
UNINCORPORATED AREAS 350012 0634 E
PANEL LOCATION
MAP NUMBER
35013C0634 E
EFFECTIVE DATE:
SEPTEMBER 27, 1991
Federal Emergency Management Agency
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

FW: CR clearance for CN 11000-30 I-10 and I-25 Interchange

Frischkorn, Curt, NMDOT [Curt.Frischkorn@state.nm.us]

Sent: Friday, December 12, 2008 4:24 PM

To: Denise M. Weston

From: Wallace, Laurel T., NMDOT
Sent: Friday, December 12, 2008 1:20 PM
To: Roxlau, Blake R., NMDOT; Frischkorn, Curt, NMDOT
Subject: CR clearance for CN 11000-30 I-10 and I-25 Interchange

Blake and Curt:
Please consider the project to reconstruct the Interstate 10 and Interstate 25 Interchange (HPP-010-2(127)44, CN 11000-30), Doña Ana County, to be cleared for cultural resource issues. The original project to reconstruct Interstate 10 between Las Cruces and the Texas State line has been reduced in scope considerably, and the new proposed project areas given new project numbers.

The inventory report (*Cultural Resources Survey for the Interstate 10 Corridor Study: Las Cruces to Texas State Line, Doña Ana County, New Mexico*) identified no archaeological or historic resources within the surveyed APE of the proposed I-10/I-25 Interchange improvements.

Traditional Cultural Properties inquiries have been completed and responses were received from the Navajo Nation and Isleta Pueblo. The proposed I-40/NM 404 Interchange area appears to have no evidence of serving as a traditional cultural property. The NMDOT Cultural Resources Bureau considers this project cleared for Traditional Cultural Properties issues.

Under our present agreement with the New Mexico Historic Preservation Division, effective June 21, 2005, the NMDOT may proceed with an undertaking following approval by the NMDOT cultural resources manager/staff.

Thank you-

Laurel Wallace
Cultural Resources Section
NM Department of Transportation
1120 Cerrillos Rd, Room 213
Santa Fe, New Mexico 87505-1842
office: (505) 827-5240
cell: (505) 490-2501

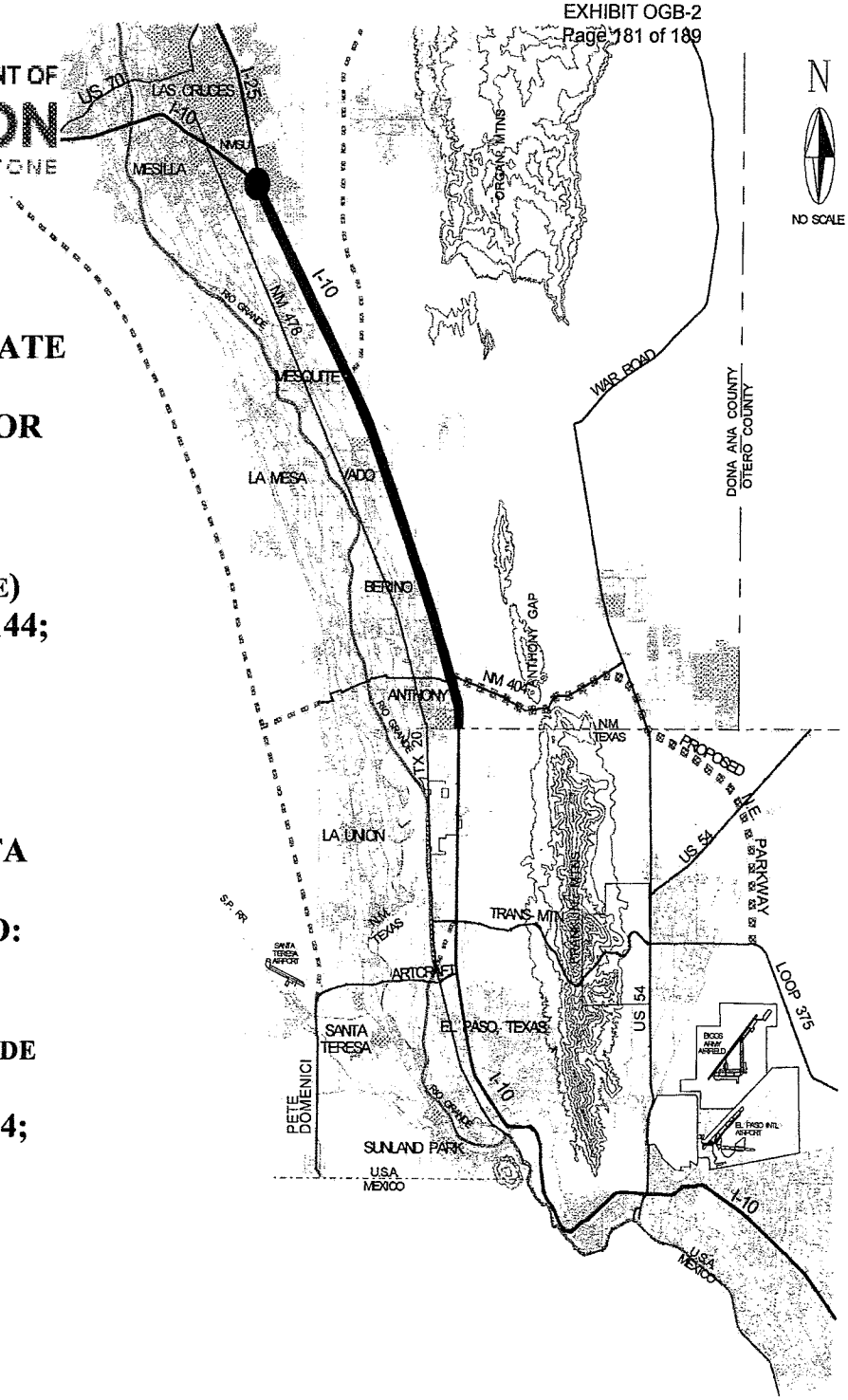
APPENDIX C

Public Involvement Activities

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

YOU ARE INVITED TO PARTICIPATE IN OUR TRANSPORTATION NEIGHBORHOOD MEETINGS FOR THE:
I-10 GRIP
CORRIDOR STUDY
(LAS CRUCES TO TEXAS STATE LINE)
NMDOT NO: AC-GRIP-010-2(108)144;
CN: G18A1

ESTA USTED INVITADO A PARTICIPAR EN NUESTRA JUNTA DE TRANSPORTACION EN SU VECINDAD PARA EL PROYECTO:
I-10 GRIP
ESTUDIO CORREDOR
(LAS CRUCES A LA LINEA DEL ESTADO DE TEXAS)
NMDOT NO: AC-GRIP010-2(108)144;
CN: G18A1



AGENDA:

- INTRODUCTION
- PROJECT OVERVIEW
- REQUEST FOR INPUT & PARTICIPATION

AGENDA:

- INTRODUCCION
- DESCRIPCION DEL PROYECTO
- PETICION DE IDEAS Y PARTICIPACION

SCHEDULE / HORARIO

DATE/FECHA	TIME/HORA	LOCATION/LOCALIDAD	ADDRESS/DOMICILIO	HOST/ANFITRION
September 20, 2005	6:00 PM	Mesquite, NM	215 Bryant Mesquite, NM 88048	Mesquite Water
September 21, 2005	7:00 PM	Vado/Del Cerro, NM	180 La Fe Ave Vado NM 88048	Del Cerro Comm. Center Centro Fuerza Y Unidad
September 27, 2005	7:00 PM	Anthony, Texas	401 Wildcat Drive Anthony, TX 79821	Town of Anthony, Texas
October 3, 2005	6:30 PM	Las Cruces, NM Club Fusion	101 E. Union Ave. Las Cruces, NM 88001	Las Cruces MPO
October 5, 2005	6:30 PM	Las Cruces, NM Las Alturas Fire Station	4145 Cholla Rd Las Cruces, NM 88011	Las Cruces MPO
October 12, 2005	6:30 PM	Canutillo, Texas High School	7311 Bosque Rd. Canutillo, TX 79835	Canutillo ISD
October 17, 2005	6:30 PM	Berino, NM	205 San Benito Street Berino, NM 88024	Berino Immaculate Conception Church
October 18, 2005	11:00 AM	Anthony, NM	1155 4th Street Anthony, NM 88021	Anthony/Berino Econ. Development Council
October 24, 2005	7:30 PM	Brazito, NM	885 Three Hawks Rd. Mesilla Park, NM 88047	Brazito Water
October 25, 2005	6:30 PM	La Union, NM	1708 Main Street La Union, NM 88021	La Union Town Council Our Lady of Refuge Church
November 2, 2005	6:00 PM	La Mesa, NM	521 St. Valentine St. La Mesa, NM 88044	La Mesa Water

Meeting sponsored by the NMDOT and the I-10 Corridor Study Team. For questions or comments, please call Jerry B. Paz, P.E. of Molzen-Corbin & Associates Toll Free at 1-866-316-0443 or e-mail at jpaz@molzencorbin.com

INTERSTATE 10 CORRIDOR STUDY TEAM

Esta junta es patrocinada por NMDOT y el Equipo de Estudio del Corredor I-10. Para preguntas o commentarios, por favor llame a Ingeniero Jerry B. Paz de Molzen-Corbin & Associates Gratis al 1-866-316-0443 o al correo electronico jpaz@molzencorbin.com

INTERSTATE 10 CORRIDOR
STUDY TEAM

I-10 Corridor Study

NMDOT Project No. AC-GRIP-010-2(108)144: CN G18A1

MEETING SUMMARY DRAFT
City of Las Cruces Neighborhood Meeting
October 24, 2006
Prepared by Denise Weston, Taschek Environmental

I-10 CORRIDOR STUDY TEAM MEMBERS IN ATTENDENCE:

Jerry Paz,	Molzen-Corbin & Associates
Jerry Cordova,	Molzen-Corbin & Associates
Denise Weston,	Taschek Environmental Consulting

Location: Club Fusion
Time: 6 pm

A neighborhood meeting was called by Councilor Dolores Connor. On the agenda of this meeting was a discussion of the land swap between the City of Las Cruces and the New Mexico Department of Transportation for the vacant parcel of land located adjacent to Stern Drive at the corner of Agave Drive. Mike Johnson, Public Works Director with the City of Las Cruces, provided a brief presentation on the land swap and its connection with the proposed NMDOT I-10 improvements. In response to this presentation, several questions and concerns were raised by the public on the proposed interstate improvements in the area of Stern Drive. Jerry Paz with Molzen-Corbin & Associates spoke in response to those concerns. A summary of the questions and issues expressed are as follows:

Have you considered the traffic on Stern Drive?
It is already difficult to turn on/off of Stern Drive?
A new interchange is going to make it more difficult to turn on/off of Stern Drive?
Have you considered the new development on Stern Drive and the increase in traffic as a result of that development?
We already need improvements on Stern Drive?
Are you going to provide improvements to Stern Drive?
Why are you putting a new interchange on I-10 and not on I-25?
Stern Drive can't be widened because of the cemetery.
Las Alturas has plenty of room for widening.
Can you move the interchange further south?
We don't need more interchanges?
Why provide additional access to NMSU?
Why are you moving the interstate traffic closer to our neighborhood?
Have you considered the drainage issues on Stern Drive?
Is the arrowhead overpass going to put more traffic on Stern Drive?
With the closure of Cholla Drive I will have to drive further to the hospital for emergency services?

It was explained that further analysis on the impacts to Stern Drive would be considered as well as all impacts of the proposed improvements. All of the participants were provided with comment sheets and contact information on the NMDOT I-10 Corridor Study. It was emphasized that they would be added to the mailing list and invited to the next stakeholder meeting.

Public Involvement Meeting

The New Mexico Department of Transportation (NMDOT)
in cooperation with the
Federal Highway Administration (FHWA)
invites you to attend a public meeting on proposed improvements to

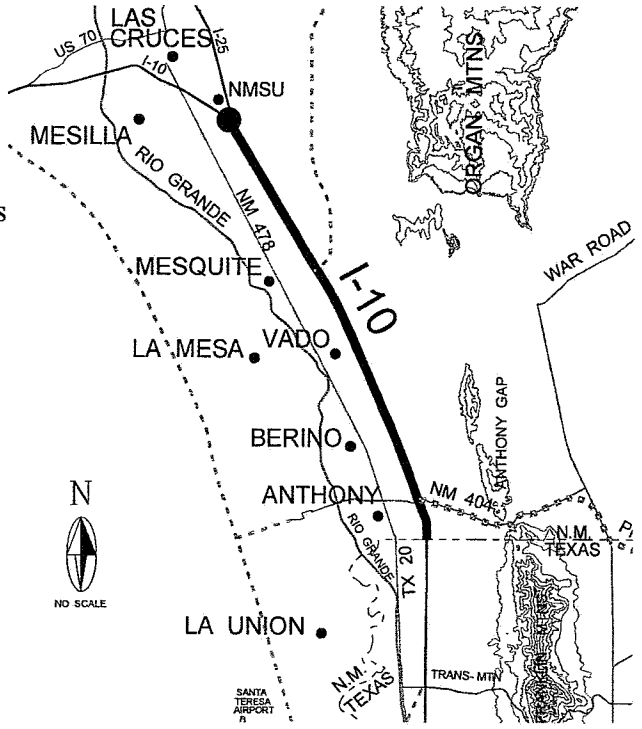
Interstate 10 (I-10)

(Las Cruces to the New Mexico/Texas State Line)
in Doña Ana County, New Mexico.
Project No. AC-GRIP-010-2(108)144: CN G18A1

DATE: Wednesday, March 15, 2006

TIME: 6:00-7:00 P.M. – Open House
7:00-8:00 P.M. – Presentation & Comments

PLACE: New Mexico Farm & Ranch
Heritage Museum
4100 Dripping Springs Road
Las Cruces, New Mexico



INTERSTATE 10 CORRIDOR
STUDY TEAM

The NMDOT and FHWA are proposing improvements to the I-10 corridor between the I-10/I-25 interchange in Las Cruces, New Mexico and the New Mexico/Texas State Line in Doña Ana County, New Mexico. Preliminary alternatives will be presented at the meeting and will include proposed improvements to the I-10 main lanes, the frontage roads, and the following interchanges: I-10/I-25, I-10/NM 228 (Mesquite), I-10/NM 227 (Vado), and I-10/NM 404 (Anthony). You are encouraged to attend this meeting to provide input on the transportation needs of the region including bicycle, pedestrian, equestrian, and cultural resource issues. There will be an opportunity for questions and comments from the public. There will be a Spanish-language translator available for both the presentation and comments.

General questions about the project or requests for Americans with Disabilities Act (ADA) related accommodations should be directed to Molzen-Corbin & Associates at (505) 522-0049 (English/Spanish.)

INTERSTATE 10 CORRIDOR
STUDY TEAM

New Mexico Department of Transportation (NMDOT) in cooperation with the Federal Highway Administration (FHWA)

Public Involvement Meeting

Wednesday, September 27, 2006

I-10 Corridor Study
Doña Ana County, New Mexico
AC-GRIP-010-2(018)144: CN G18A1

6:00 – 7:00 pm

Open House

7:00 – 7:40 pm

Staff Presentation in English

Gabriela Appodaca, P.E.,
Project Development Engineer, NMDOT

Jerry Paz, P.E.,
Molzen-Corbin & Associates

Denise Weston,
Taschek Environmental Consulting

Eric Hawton, P.E.,
HDR, Inc.

Jan Niclas, P.E.,
HDR, Inc.

7:40 – 8:00 pm

Public Comment
There will be an opportunity for questions and comments from the public.

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*There will be a Spanish-language translator available.

Departamento de Transporte de Nuevo México (NMDOT) en cooperación con la Administración Federal de Carreteras (FHWA)

Reunión De Participación Ciudadana

Miércoles 27 de septiembre de 2006

I-10 Corridor Study
Doña Ana County, New Mexico
AC-GRIP-010-2(018)144: CN G18A1

6:00 – 7:00 pm

Reunión Preliminar

7:00 – 7:40 pm

Presentación del Personal en Inglés

Gabriela Apodaca, P.E.,
Ingeniero de Desarrollo de Proyectos, NMDOT

Jerry Paz, P.E.,
Molzen-Corbin & Associates

Denise Weston,
Taschek Environmental Consulting

Eric Hawton, P.E.,
HDR, Inc.

Jan Niclas, P.E.,
HDR, Inc.

7:40 – 8:00 pm

Comentarios del Público
Habrá oportunidad de una sesión de preguntas y respuestas para el público en general.

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*También habrá un traductor del Inglés al Español disponible.

INTERSTATE 10 CORRIDOR STUDY TEAM

I-10 GRIP Project: Texas State Line to Las Cruces

AC-GRIP-010-2(108)144; CN G18A1

Agency Stakeholder Meeting #1

August 25, 2005 • 9:30 a.m. - 3:30 p.m.

Best Western Conference Center, Las Cruces, New Mexico

Agenda

Objectives:

1. To align all project team members' expectations—including both the technical team and agency representatives.
2. To identify priority values, concerns and ideas of agency stakeholder groups.
3. To establish a standard of success for the project study that lasts through the project.
4. To create a sense of *teamwork* and *mutual obligation* for a successful project.

Agenda (times are approximate; breaks will be taken as needed):

9:30 **Welcome/Introductions/Meeting Overview**—This will include brief opening remarks from representatives of the principal organizations, outlining the importance of the project and the meeting.

9:45 **Project Overview**—An overview of key aspects of the project.

10:15 **Mapping Stakeholder Values, Concerns and Ideas**

- Small groups of 5-8 people will use maps of the study area to brainstorm ideas, note insights, highlight concerns, express hopes and make a visual record of the group's conversation. Each group will use three different copies of an area map to note:
- Map #1—Special qualities and nodes: "Places of the Heart"
- Map #2—Concerns and Highlights: "Good and Bad Happenings"
- Map #3—Ideas for the Project Study: "Where to Take Action"

Noon **Lunch**

1:00 **Indicators of Partnership Success**—Participants will consider a common focus question: "As the project goes forward, what will a successful study phase of the project look like, both during the study process and when the study is finished?" Small groups will discuss individual priorities and values, and the total group will craft a common set of priority expectations and goals that will guide the whole project team's interactions.

2:30 **Partnering Agreement**—A brief charter will be drafted that incorporates results from the morning's discussions. Each person will be invited to sign the agreement as a sign of his/her commitment to help implement the agreements made in the meeting.

3:00 **Adjourn**

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

March 7, 2006

Dear Valued Stakeholder of the NMDOT I-10 Corridor Study,

Thank you for attending the Stakeholder Meeting for the I-10 Corridor Study on March 3, 2006. We understand that it was a substantial time commitment out of your busy schedule and hope you feel that it was worth your time and effort to participate. As a study team, we were very pleased with the results of the meeting, respect the input you provided, and will evaluate your comments as we proceed with the alternative selection process.

We would also like to respond to your concerns over the difficult balance between the quantity of information that was provided and the lack of detail on some very relevant topics. As pointed out at the meeting, there were many references made to the *Phase A Location and Environmental Study Report* yet no one had been given the opportunity to review the document. In order to equip you with all of the necessary information needed to make the most appropriate choices for the project, I have enclosed a CD which contains the *Phase A Location and Environmental Study Report.* I hope this provides the answers to any remaining questions you may have. A copy of the Power Point presentation is also included on the CD. Please feel free to share this information with other interested members of the community.

With this letter, a comment form is provided for your use. If, after reviewing the *Phase A Location and Environmental Study Report,* you have additional comments to make, please share them with us. If you prefer to provide feedback via email, my contact information is below.

We hope, as the I-10 Corridor Study progresses, you will continue to provide input to ensure that design recommendations along the corridor represent the needs and wants of this community. And, don't forget the Public Involvement Meeting on March 15, 2006 from 6-8 P.M. at the New Mexico Farm and Ranch Heritage Museum in Las Cruces. Your support is always appreciated.

If you have any further comments on the workshop or concerns with the project, please feel free to contact me at (505) 522-7400 or at tecdenise@aol.com.

Sincerely,

Denise Weston

INTERSTATE 10 CORRIDOR
STUDY TEAM

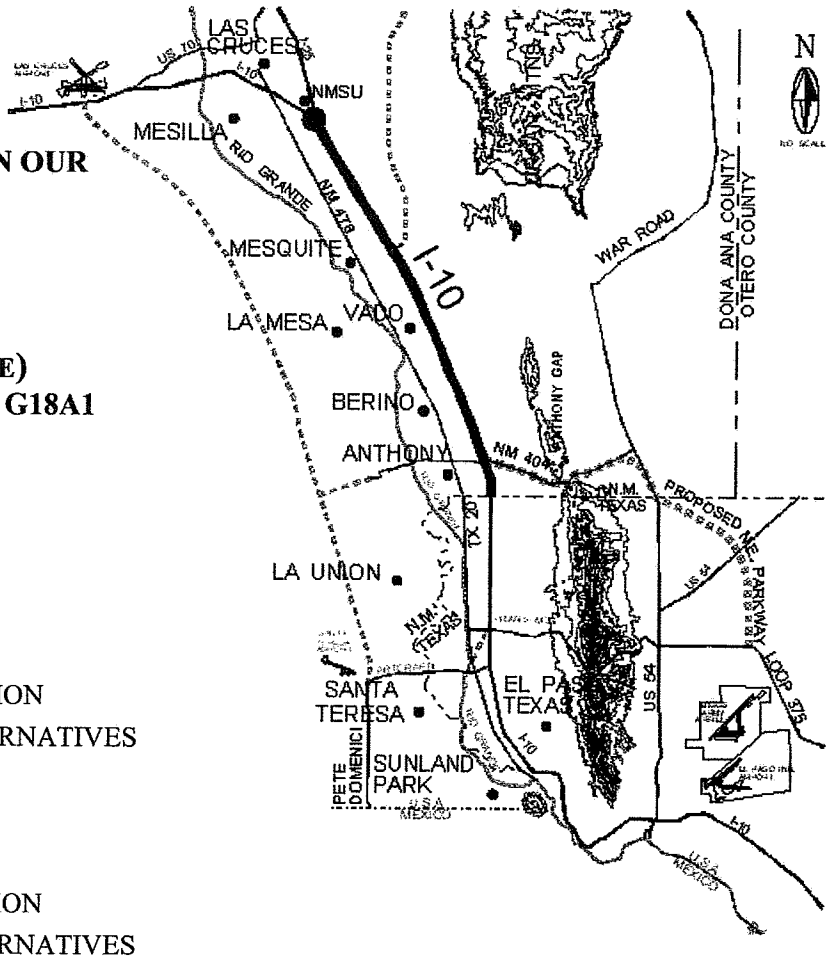
New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

YOU ARE INVITED TO PARTICIPATE IN OUR STAKEHOLDER MEETING #4 FOR THE:

I-10 GRIP CORRIDOR STUDY

(LAS CRUCES TO TEXAS STATE LINE)

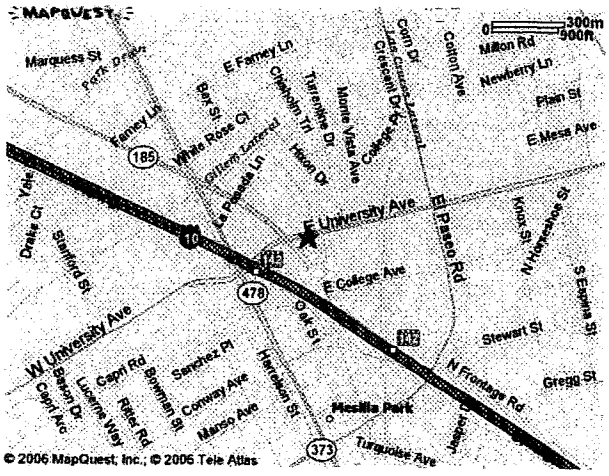
NMDOT NO: AC-GRIP-010-2(108)144; CN: G18A1



AGENDA:

8:45 A.M.	REGISTRATION
9:00 A.M.	OPEN HOUSE / WELCOME
9:30 A.M.	PRESENTATION / DISCUSSION ON RECOMMENDED ALTERNATIVES
NOON:	LUNCH
12:45 P.M.	PRESENTATION / DISCUSSION ON RECOMMENDED ALTERNATIVES
2:30 P.M.	CONCLUSIONS AND FEEDBACK
3:00 P.M.	ADJOURN

WHEN:	WEDNESDAY, JULY 26, 2006
TIME:	9:00 A.M. TO 3:00 P.M.
WHERE:	RAMADA PALMS LA MESA ROOM 201 E. UNIVERSITY AVE LAS CRUCES, NEW MEXICO



INTERSTATE 10 CORRIDOR STUDY TEAM

Meeting hosted by the NMDOT and the I-10 Corridor Study Team. For questions or comments, please call Jerry B. Paz, P.E. of Molzen-Corbin & Associates at 505.522.0049 or e-mail him at jpaz@molzencorbin.com.

8.8 Energy Profile Spreadsheet (Editable Electronic Excel File to be provided to Bidders)

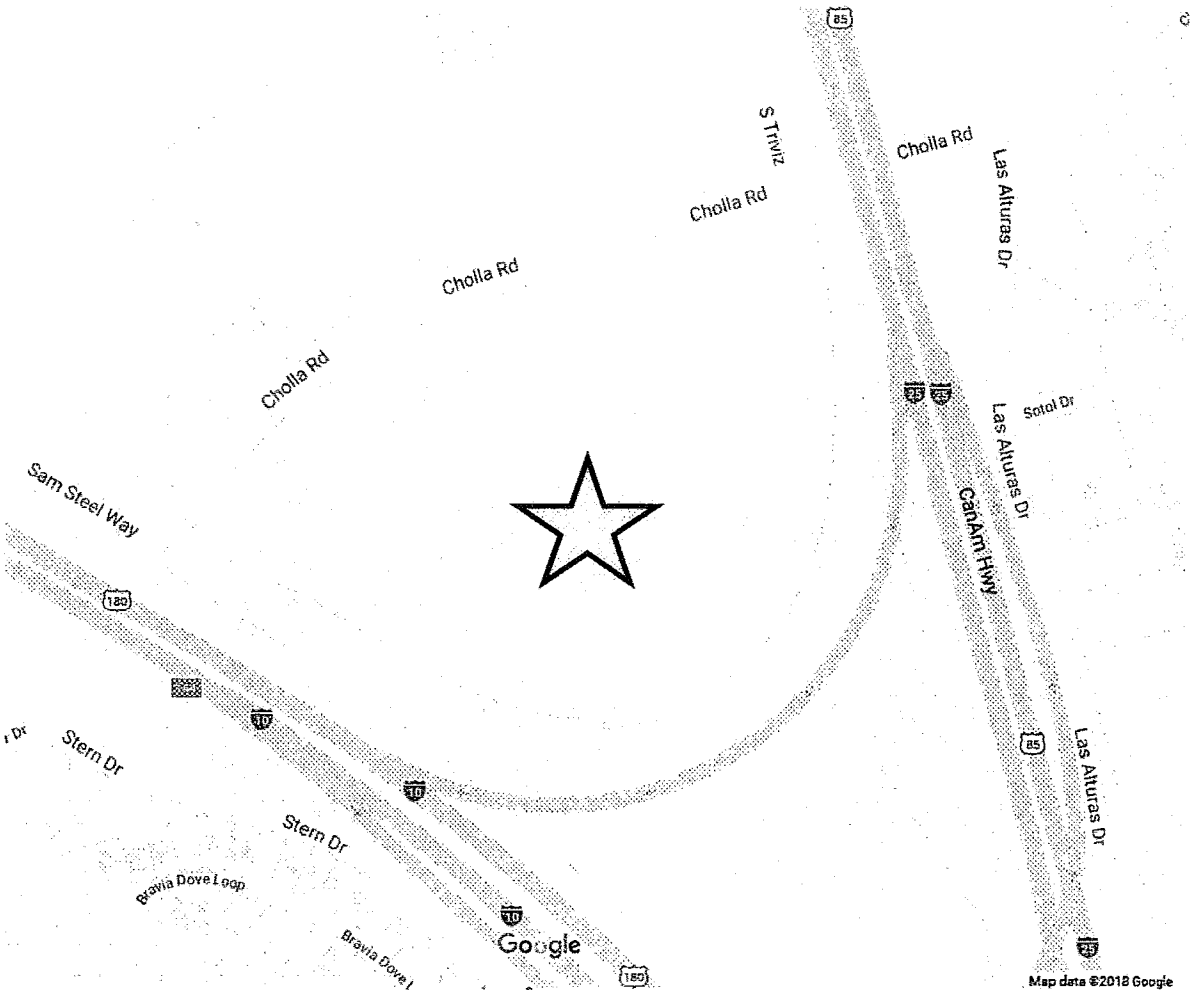
RFP Proposal's Levelized Cost Ranking Table
Best and Final Offer

3 MW Solar Plus 1 MW/4MWh Storage

Bidder	Bid Amount Solar	Bid Amount Storage	Total Bid Amount Solar plus Storage	Solar LCOE/kWh	STORAGE LCOS/kWh	Solar Plus Storage Levelized Cost	Ranking
Affordable	$ 4,301,797	$ 1,969,000	$ 6,270,797	0.05902	0.22576	0.08042	1
Bidder B	$ 5,096,807	$ 2,287,160	$ 7,383,967	0.06992	0.25394	0.09443	2
Bidder C	$ 4,801,456	$ 2,686,387	$ 7,487,843	0.06838	0.35406	0.10141	3

EXHIBIT OGB-3
Page 1 of 1

Map of Project Location



The NMSU Project land is surrounded by I-10, I-25, and Cholla Rd.

Total Capital Project Cost Breakdown

1	**Construction**		
2	Contractor Bid Price	$	6,284,580
3	Gross Receipts Tax	$	424,209
4	Total Construction Cost	$	6,708,789
5	**Fencing**	$	261,000
6	**Interconnection**		
7	Interconnection Cost	$	380,000
8	Gross Receipts Tax	$	25,650
9	Total Interconnection Cost	$	405,650
10	**AFUDC**	$	262,783
11	**Capitalized A&G and Other Expenses**		
12	Capitalized A&G	$	75,004
13	Project Mgmt Labor and OH	$	75,000
14	Legal Fees	$	50,000
15	Total Capitalized A&G and Other	$	200,004
16			
17	**Total Capital Costs**	$	7,838,226

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF EL PASO ELECTRIC COMPANY'S APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A SOLAR GENERATION/STORAGE PROJECT AT NEW MEXICO STATE UNIVERSITY AND FOR APPROVAL OF A SPECIAL RATE CONTRACT	)	**No. 19-00250-UT**
EL PASO ELECTRIC COMPANY, **Applicant.**	)	

AFFIDAVIT

STATE OF TEXAS)
) ss.
COUNTY OF EL PASO)

I, **Omar Garcia-Bracho,** hereby depose and state under oath that the information contained in the foregoing Direct Testimony of Omar Garcia-Bracho, together with all exhibits sponsored therein and attached thereto, is true and accurate based on my knowledge and belief.

SIGNED this 31 day of October, 2019.

OMAR GARCIA-BRACHO

SIGNED AND SWORN to before me on 31st day of October, 2019 by Omar Garcia-Bracho.

Linda Pleasant
NOTARY PUBLIC

My commission expires:
June 20, 2022

LINDA PLEASANT
Notary Public, State of Texas
Comm. Expires 06-20-2022
Notary ID 13161350-1

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF EL PASO ELECTRIC COMPANY'S APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A SOLAR GENERATION/STORAGE PROJECT AT NEW MEXICO STATE UNIVERSITY AND FOR APPROVAL OF A SPECIAL RATE CONTRACT)	)	**Case No. 19-00___-UT**
EL PASO ELECTRIC COMPANY, Applicant.	)	

DIRECT TESTIMONY OF

JULIO C. AGUIRRE

ON BEHALF OF

EL PASO ELECTRIC COMPANY

NOVEMBER 2019

TABLE OF CONTENTS

EXHIBITS

EL PASO ELECTRIC COMPANY
DIRECT TESTIMONY OF
JULIO C. AGUIRRE

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Julio C. Aguirre. My business address is 100 North Stanton Street, El Paso, Texas, 79901.

Q. HOW ARE YOU EMPLOYED?

A. I am employed by El Paso Electric Company ("EPE" or the "Company") as a Senior Rate Analyst.

Q. PLEASE SUMMARIZE YOUR PROFESSIONAL EXPERIENCE.

A. I have been employed by EPE since December 2018 as a Senior Rate Analyst in the Rates and Regulatory Affairs Department, where I am responsible for preparing schedules and workpapers for rate case filings, performing various *ad hoc* analyses, and assisting in the preparation of other regulatory filings related to fuel, energy efficiency, and renewable energy. Prior to assuming my current responsibilities at EPE, I worked as a Lead Pricing Analyst at Public Service Company of New Mexico ("PNM") from 2010 to 2018, where I was responsible for planning, developing and implementing electric rates and leading the development and presentation of expert testimony regarding PNM' s rate design before the New Mexico Public Regulation Commission. Prior to working at PNM, I worked

as a Regulatory Economist with the Regulatory Operations Staff of the Public Utilities Commission of Nevada from 2007 to 2010.

Q. WHAT ARE YOUR RESPONSIBILITIES WITH EPE?

A. As a Senior Rate Analyst in the Rates and Regulatory Affairs Department, my main responsibilities are to perform or assist in the preparation of economic, statistical, cost, and rate design studies and to develop models and methodologies to support the planning, developing and implementation of electricity pricing options.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND.

A. I received a Bachelor in International Economics from the Autonomous University of Chihuahua in 2005, and in 2007 I earned a Master of Arts degree in Economics from New Mexico State University ("NMSU") with a specialization in Public Utility Regulation. Additionally, I have completed several graduate level business courses at University of New Mexico, including but not limited to: financial accounting, managerial economics, financial management, accounting and management information systems and operations management.

Q. HAVE YOU PREVIOUSLY PRESENTED TESTIMONY BEFORE UTILITY REGULATORY BODIES?

A. Yes, I have filed testimony and testified before the New Mexico Public Regulation Commission ("NMPRC" or "Commission"). I have also filed testimony and testified before the Public Utilities Commission of Nevada.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to support the pricing and billing structure for EPE's proposed 3-megawatt ("MW"), ground mounted, single-axis solar photovoltaic generating facility coupled with a 1-MW, 4-megawatt-hour ("MWh") battery storage system located wholly within Arrowhead Park on the NMSU campus, a research park established by the NMSU Regents under the University Research Park and Economic Development Act, in Doña Ana County, New Mexico (the "NMSU Project" or the "Project"). In my testimony, I sponsor Exhibit A of the Special Rate Contract ("Rate Contract") agreed to between EPE and NMSU for the NMSU Project, which outlines the provisions applicable to the rates for the electric service provided to NMSU both as Grid Resource Power and as Project Power. More specifically, Exhibit A in the Rate Contract describes the billing mechanism through which EPE will assess NMSU for the costs of the NMSU Project and the billing for the retail electric service provided to NMSU as a result of the NMSU Project. A copy of Exhibit A from the Rate Contract is provided as a reference and

attached to this direct testimony as EPE Exhibit JCA-1. The Rate Contract is also provided as Exhibit JS-1 in the Direct Testimony of EPE witness James A. Schichtl.

Q. ARE YOU SPONSORING ANY EXHIBITS IN SUPPORT OF YOUR TESTIMONY?

A. Yes. I am sponsoring the following exhibits:

- Exhibit JCA-1 Copy of Exhibit A of the Rate Contract;
- Exhibit JCA-2 Calculation of the Levelized Cost of Energy for the NMSU Project; and
- Exhibit JCA-3 Bill Impact Assessment of the NMSU Project.

III. BILLING CONDITIONS

Q. HOW WILL NMSU BE BILLED PRIOR TO THE COMMERCIAL OPERATION OF THE NMSU PROJECT?

A. Prior to the commercial operation of the NMSU Project, NMSU will continue to be billed under the currently applicable Rate 26 – State University Service Rate ("Rate 26") tariff and be subject to any other applicable rates and/or riders as approved by the NMPRC.[1]

[1] For billing purposes, the test energy generated before the commercial operation of the NMSU Project will be included and billed as energy provided under Rate 26.

Q. WHAT IS THE GRID RESOURCE POWER IN THE RATE CONTRACT?

A. Under the terms of the Rate Contract, the Grid Resource Power is defined as: the firm electric demand and energy delivered through the electrical distribution system owned by EPE and operated and maintained outside of NMSU's distribution system. In simple terms, the Grid Resource Power is the electric service provided by EPE to NMSU for metered demand and energy usage, excluding the output of the NMSU Project.

Q. WHAT IS THE PROJECT POWER IN THE RATE CONTRACT?

A. Under the terms of the Rate Contract, the Project Power is all the demand and energy delivered by the NMSU Project to NMSU's distribution system.

Q. HOW WILL NMSU BE BILLED UPON THE COMMERCIAL OPERATION OF THE NMSU PROJECT?

A. Upon commercial operation of the NMSU Project, NMSU will be billed for both Grid Resource Power and Project Power. NMSU will continue to be billed under the currently applicable Rate 26 tariff for any Grid Resource Power, with certain adjustments to the billing determinants as more fully explained below. In addition, NMSU will be billed for the Project Power supplied directly from the NMSU Project to NMSU's distribution system. As mentioned above, NMSU's main

campus receives electric service under Rate 26, and the NMSU Project will only provide a portion of NMSU's generation and energy electricity requirements on-site, for which NMSU will receive some bill credits for the NMSU Project's capacity and energy production. These bill credits are described in Section VI below. Therefore, upon commercial operation of the NMSU Project, the same Rate 26 tariff charges for demand and energy will continue to be applicable for the remainder of NMSU's electric requirements not supplied through the output of the NMSU Project (i.e., Project Power) requested in this filing.

IV. GRID RESOURCE POWER (ARTICLE 1)

Q. HOW WILL NMSU BE BILLED FOR DEMAND USAGE UPON THE COMMERCIAL OPERATION OF THE NMSU PROJECT?

A. Once the NMSU Project is fully operational, EPE will assess the applicable seasonable demand rate, as approved in Rate 26, multiplied by the Monthly Demand Billing Determinant. The Monthly Demand Billing Determinant will be calculated as the highest thirty-minute integrated kW load, which is the sum of the metered demand (i.e., the highest kW Grid Resource Power load), plus the delivered kW output of the NMSU Project (i.e., the highest kW Project Power load), as measured in the same 30-minute interval. In other words, EPE will assess the

kW demand charge on the combined highest NMSU kW load served by EPE plus the kW solar production from the NMSU Project in any 30-minute period.

Q. HOW WILL NMSU BE BILLED FOR VOLUMETRIC KWH ENERGY USAGE UPON COMMERCIAL OPERATION OF THE NMSU PROJECT?

A. EPE will assess the applicable volumetric time-of-use energy rates as approved in Rate 26, multiplied by the Monthly Billed Energy Determinant. The Monthly Billed Energy Determinant will be calculated as the sum of the metered energy delivered from EPE to NMSU (i.e., the Grid Resource Power), plus the delivered kWh output of the NMSU Project (i.e., the Project Power), as aggregated in the same billing periods as defined in Rate 26. In other words, EPE will assess the kWh energy charges on the combined energy kWh usage of NMSU served by EPE plus the kWh solar production from the NMSU Project.

Q. WHY WILL EPE CALCULATE THE BILLABLE DEMAND AND ENERGY USING THE COMBINED ELECTRIC USAGE AND SOLAR PRODUCTION OF THE NMSU PROJECT (I.E., USING "GROSS" CONSUMPTION)?

A. Because the NMSU Project is expected to be installed behind NMSU's meter, EPE will use the combined Grid Resource Power load recorded at NMSU's meter,[2] plus the Project Power, to determine the demand and energy billing determinants and to facilitate the recovery of the fixed costs, particularly transmission and distribution costs incurred to serve the totality of NMSU's load at any point in time, regardless of the solar facility. On the other hand, as I explain in more detail in Section VI of my testimony, the credits applied to NMSU's bill quantify the value of the avoided generation and other avoided variable costs provided by the operation of the NMSU Project, offsetting some of the charges included in NMSU's electric bill.

Q. HOW WILL EPE BILL NMSU FOR THE FUEL AND PURCHASED POWER COST ADJUSTMENT CLAUSE ("FPPCAC") RIDER NO. 18 UNDER THE RATE CONTRACT UPON THE COMMERCIAL OPERATION OF THE NMSU PROJECT?

A. As a result of the NMSU Project, EPE will bill the applicable FPPCAC Rider No. 18 rates only to NMSU's metered energy consumption as Grid Resource Power received from EPE. Assessing fuel charges on NMSU's energy usage supplied by EPE's conventional generation resources reflects the zero cost of fuel for the NMSU Project's energy output.

[2] Also defined as Grid Resource Power Point of Delivery.

Q. HOW WILL EPE BILL NMSU FOR THE RENEWABLE PORTFOLIO STANDARD ("RPS") RIDER NO. 38 UNDER THE RATE CONTRACT UPON THE COMMERCIAL OPERATION OF THE NMSU PROJECT?

A. Similar to the charges applicable under the FPPCAC Rider No. 18, EPE will bill the applicable RPS Rider No. 38 rates to NMSU's metered energy consumption received as Grid Resource Power.

Q. WHAT OTHER RATES OR RIDERS WILL BE APPLIED TO NMSU UNDER THE NMSU PROJECT?

A. NMSU will continue to be subject to the Efficient Use of Energy Recovery Factor Rate No. 17, which is currently assessed as a percent of the bill rider, and any other rates or riders as applicable to NMSU and as approved by the NMPRC.

V. PROJECT POWER (ARTICLES 2, 3, 4 AND 5)

Q. HOW WILL EPE RECOVER THE COST OF THE NMSU PROJECT?

A. The full cost of the NMSU Project will be recovered through the Project Energy Charge, calculated as the levelized cost of energy ("LCOE") per kilowatt-hour ("kWh") estimated for the NMSU Project. The Project Energy Charge, or LCOE, is projected to remain the same over the life of the Rate Contract signed between

NMSU and EPE.[3] The Project Energy Charge agreed between EPE and NMSU is $0.08289 per kWh over the term of the Rate Contract. For billing purposes, EPE will multiply the Project Energy Charge times the Project Power in kWh generated by the NMSU Project every month.

Q. WHEN IS THE NMSU PROJECT EXPECTED TO BE COMMERCIALLY OPERATIONAL?

A. EPE anticipates beginning delivery of Project Power to NMSU no later than eleven months after receipt of NMPRC approval. As explained above, prior to commercial operation, EPE will continue delivering and billing all electrical power to NMSU, including any test power from the NMSU Project, under Rate 26 rates.

Q. HOW IS THE PROJECT ENERGY CHARGE CALCULATED UNDER THE RATE CONTRACT?

A. The Project Energy Charge is based on the estimated revenue requirements of the NMSU Project over the expected 30-year life of the Project facilities. Mathematically, the Project Energy Charge, or LCOE, is calculated as the lifetime net present value ("NPV") of the total costs of the NMSU Project, including the

[3] Some adjustments to the LCOE rate may be necessary on or after Year 16 of the Project to account for any changes in the projected costs associated with the removal and replacement of the battery storage component.

plant in service, depreciation, return on the assets, taxes and other operating expenses, divided by the lifetime expected energy production. The revenue requirement presented in Exhibit JCA-2 includes capital costs of approximately $7.8 million and operating expenses of $6.3 million, which include operations and maintenance, and other expenses such as taxes, insurance and inverter and a projection of the battery replacement costs in Year 16. The Project Energy Charge calculation incorporates an Investment Tax Credit ("ITC") of 26 percent, assuming the construction of the NMSU Project starts before January 1, 2021.

Q. WHAT IS THE ITC?

A. In basic terms, an investment tax credit allows utilities a reduction in the company's tax bill for a proportion of new capital investment. Specifically, EPE plans to utilize the federal Business Energy Investment Tax Credit to reduce the costs of the NMSU Project. Expenditures for solar photovoltaic panels and other equipment used in the NMSU Project are eligible for a higher ITC if certain criteria are met.

Q. WHAT CRITERIA MUST BE MET FOR THE NMSU PROJECT TO QUALIFY FOR THE ITC?

A. As explained by EPE witness Garcia-Bracho, the construction must begin before January 1, 2021 for the NMSU Project to be eligible for a 26 percent ITC. If the

project begins construction after December 31, 2020, it will be eligible for a reduced ITC of only 22 percent.

Q. WHY IS THE EXPEDITED APPROVAL OF THE NMSU PROJECT IMPORTANT FOR THE ITC?

A. As long as the Company has a federal tax liability, the ITC will be used to off-set that liability. EPE expects that all of the ITC earned by the NMSU Project will be fully utilized to reduce the tax liability and reduce the total costs of the NMSU Project, effectively lowering the overall Project Energy Charge charged to NMSU. As mentioned above, the calculated Project Energy Charge agreed to between EPE and NMSU assumes the application of an ITC of 26 percent.

VI. PROJECT CREDITS AND REVIEW OF PROJECT ECONOMICS (ARTICLES 6 AND 7)

Q. WILL NMSU RECEIVE ANY BILL CREDITS AS A RESULT OF THE NMSU PROJECT?

A. Yes. EPE will apply an Avoided Capacity Credit[4] and a non-fuel variable cost energy credit (or "Energy Credit") to NMSU's bill, or also referred together as a "Project Credit".

[4] Avoided capacity in the context of this testimony refers specifically to generation resources.

Q. HOW WILL EPE CALCULATE THE AVOIDED CAPACITY CREDIT IN NMSU'S BILL?

A. The Avoided Capacity Credit will be assessed as a rate per kW, multiplied by the highest kW Project Power load in any 30-minute period between 12:00 pm and 6:00 pm, Monday through Friday, during the months of May, June, July, August, September, and October. The Avoided Capacity Credit reflects the avoided cost of supplying generation system resources, and it is based on EPE's projected avoided capacity cost per kW-year, used in estimating the cost effectiveness of EPE's most recently approved Energy Efficiency and Load Management ("EE/LM") programs, in NMPRC Case No. 18-00116-UT. The avoided capacity costs are included in Exhibit JCA-1, as Attachment 1 of the Rate Contract Exhibit A.

Q. WHAT IS THE AVOIDED CAPACITY CREDIT SET INITIALLY FOR THE NMSU PROJECT AND HOW OFTEN WILL IT BE UPDATED?

A. Initially, assuming commercial operation of the NMSU Project begins sometime in 2020, EPE will use the Avoided Capacity Credit calculated in its most recent EE/LM filing, which is an avoided capacity cost of $98.64/kW/Yr. The Avoided Capacity Credit will be changed annually in accordance with the avoided capacity costs table from EPE's EE/LM plan as shown in Attachment 1 of Exhibit A of the Rate Contract. Furthermore, in coordination between EPE and NMSU, the

Avoided Capacity Credit applicable to the Project may be subject to revisions during periodic reviews as I describe below, in order to ensure that the Project shall be at a minimum net cost neutral to NMSU over the term of the Rate Contract.

Q. HOW WILL THE NPV BE CALCULATED FOR PURPOSES OF DETERMINING THE NET ECONOMIC IMPACT OF THE PROJECT TO NMSU?

A. The projected NPV initially agreed to by EPE and NMSU is included as Attachment 2 in Exhibit A of the Rate Contract (Exhibit JCA-1), and it is calculated as the projected NPV of the difference between the Project Power charges minus the Project Credit, minus the other expected bill reductions (avoided costs) related to certain applicable riders, specifically the FPPCAC Rider No. 18 and the RPS Rider No. 38. Attachment 2 in Exhibit A will be used to evaluate the future economic impact of the Project to NMSU.

Q. PLEASE EXPLAIN THE NEED FOR THE POTENTIAL REVISIONS TO THE AVOIDED CAPACITY CREDIT.

A. EPE and NMSU have agreed that the Project will be net cost neutral or positive to NMSU over the term of the Rate Contract. NMSU and EPE have agreed to meet no less than once every five years to review the performance of the Project and the

expected net economic impact of the Project on NMSU ("Periodic Review"). Therefore, the Avoided Capacity Credit could be adjusted and differ in the future from the avoided capacity costs from the EE/LM Plan as shown in Attachment 1 of Exhibit A, which were used to estimate future benefits of the Project.

Q. HOW WILL EPE AND NMSU ADJUST THE AVOIDED CAPACITY CREDIT?

A. Based on the current forecasts and as shown in Attachment 2 of Exhibit A, EPE and NMSU estimate that the Project will result in a NPV of $635,314 of net benefits to NMSU over the life of the Project. EPE and NMSU will periodically update the current projections used in Attachment 2 of Exhibit A with actual data, as it becomes available (e.g., with actual billed FPPCAC Rider No. 18 and RPS Rider No. 38 rates) and refresh the remaining forecasted data if the prior forecast is no longer representative of future rates and rider charges. If during a Periodic Review, the recalculated NPV for the Project over the Term is determined to be negative, the projected Avoided Capacity Credit will be scaled for the remaining term of the Project to maintain an expected net cost neutral impact to NMSU, calculated as of the commercial operation date of the Project.

Q. WHY WILL EPE APPLY THE AVOIDED CAPACITY CREDIT ONLY DURING CERTAIN DAYS AND TIMES THROUGHOUT THE YEAR?

A. The time periods agreed to between EPE and NMSU in the Rate Contract for the application of the Avoided Capacity Credit reflect the days and hours when EPE expects to more likely experience system peak loads. EPE and NMSU expect that dispatching the NMSU Project, particularly the battery storage, to target periods with potential system peak loads will more effectively help EPE meet its system peak demands, and potentially reduce the use of more expensive generation units or avoid paying for more expensive energy in the market.

Q. WILL NMSU RECEIVE ANY CREDITS AS A RESULT OF THE NMSU PROJECT'S ENERGY PRODUCTION?

A. Yes. EPE will apply the Energy Credit to NMSU, assessed as a rate per kWh, multiplied by the output of the NMSU Project (i.e., the Project Power). The energy supplied by the NMSU Project essentially replaces energy the customer would have otherwise purchased from EPE's system resources and, therefore, the customer will receive a credit for that solar output. The Energy Credit reflects the avoided non-fuel energy related variable cost of supplying electricity embedded in Rate 26 volumetric rates, which reflects some of the avoided operation and maintenance costs that vary with the amount of kWh produced by EPE's system resources. The

current system average non-fuel variable energy cost credit of $0.007255 per kWh is based on EPE's last rate case filing, NMPRC Case No. 15-00127-UT, including the estimated adjustment resulting from the Federal Tax Cuts and Jobs Act of 2017.[5]

Q. WHAT IS THE ESTIMATED IMPACT OF THE NMSU PROJECT ON NMSU'S CURRENT RATE 26 BILL?

A. EPE's Exhibit JCA-3 provides an illustrative example of the bill impact of the NMSU Project over a full calendar year, using the pricing terms agreed to in the Rate Contract, historical billing data from 2018, and the projected solar production of the NMSU Project for its first year of operation.

Q. WILL OTHER CUSTOMERS BE SUBJECT TO ANY BILL CHARGES AS A RESULT OF THE NMSU PROJECT?

A. No.

VII. SUMMARY AND CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

[5] See EPE's tariff schedule Original Rate No. 41 – Federal Tax Credit Factor.

A. EPE requests approval for the NMSU Project and the associated Rate Contract. NMSU will pay a Project Energy Charge of $0.08289 per kWh over the life of the facility to recover all the costs to construct, maintain and operate the Project facilities. NMSU will be subject to an Avoided Capacity Credit and an Energy Credit in addition to lower charges for the FPPCAC Rider No. 18 and RPS Rider No. 38. The Avoided Capacity Credit could be adjusted in the future to ensure that the NPV of the project results in a neutral economic impact on NMSU. No other customers' bills in NM will be negatively impacted by the NMSU Project.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

EXHIBIT A
RETAIL ELECTRIC SERVICE

This Exhibit A is for retail electric service delivered by EPE to NMSU. Capitalized terms not defined in Section 8.3 of this Exhibit A will have the meanings set forth in the Agreement.

ARTICLE 1. MONTHLY RATE FOR GRID RESOURCE POWER:

1.1. Grid Resource Power delivered by EPE to NMSU under the Agreement will be provided in accordance with EPE's approved tariffs.

1.2. NMSU will be billed for its metered consumption from the EPE system at the Grid Resource Power Point of Delivery based on the rates established in Rate No. 26, which rates may be adjusted from time to time as approved by the NMPRC.

1.3. The Project Power Point of Delivery is located "behind-the-meter" with respect to the Grid Resource Power Point of Delivery. The Grid Resource Power and the Project Power will be aggregated monthly as the billing determinants for purposes of billing the Rate No. 26 Demand Charge and the Rate No. 26 Energy Charges included in base rates, as described in Sections 1.4 and 1.5.

1.4. The Rate No. 26 Demand Charge included in base rates will apply to the highest 30-minute combined integrated kW load, which is the aggregate of 1) the highest kW load measured at the Grid Resource Power Point of Delivery, and 2) Project Power kW load delivered to the Project Power Point of Delivery, as measured in the same single 30-minute interval.

1.5. The Rate No. 26 Energy Charges included in base rates will apply to the aggregated 1) Grid Resource Power kWh monthly billing determinants and 2) the Project Power kWh monthly billing determinants by time-of-use period, as applicable.

1.6. All other approved riders, factors, and surcharges as currently in effect under Rate No. 26 and all rates referenced as applicable under Rate No. 26 will be assessed. New Mexico Rate No. 18 Fuel and Purchased Power Cost Adjustment Clause ("FPPCAC") and New Mexico Rate No. 38 Renewable Portfolio Standard Cost Rider ("RPS Rider") will be applied to Grid Resource Power monthly billing determinants. New Mexico Rate No. 17 Efficient Use of Energy Recovery Factor and New Mexico Rate No. 41 Federal Tax Credit Factor will be applied as set forth in each respective tariff filed with the NMPRC.

1.7. NMSU and EPE agree that the metered energy (kWh) and demand (kW) monthly billing of the Grid Resource Power and the Project Power will be aggregated for purposes of cost allocation and rate design in any future base rate proceeding.

ARTICLE 2. PROJECT ENERGY CHARGE:

2.1. On and after the Commercial Operation Date, Project Power delivered by EPE to NMSU will be provided in accordance with the Agreement and pursuant to the provisions of this Exhibit A.

2.2. If the Commercial Operation Date falls outside of the first day of a regularly scheduled billing period under Rate No. 26, the first invoice for Project Power, which includes both the Project Energy Charge and the Project Credit described in Article 6 of this Exhibit A, will be prorated to account for the partial billing period.

2.3. A Project Energy Charge of $0.08289 per kWh will be assessed for all Project Power. The Project Energy Charge is inclusive of all benefits accruing to EPE as a result of any and all applicable tax or other available incentives, accounting treatments, or other incentives applicable to this project that are in effect before the start date of the Agreement. EPE will receive these incentives after Agreement award. The Energy Charge will not be adjusted as a result of EPE's receipt, or lack thereof, of any such incentive after Agreement award.

2.4. The Project Energy Charge will not escalate for the duration of the Agreement.

2.5. There is no monthly customer-meter charge.

2.6. There is no monthly minimum charge.

ARTICLE 3. DELIVERY SCHEDULE:

3.1. EPE anticipates beginning delivery of Project Power to NMSU no later than 11 months after receipt of NMPRC Approval. Prior to Commercial Operation, EPE will deliver and bill all electrical power to NMSU, including the Test Power, under Rate 26.

ARTICLE 4. TERMS AND CONDITIONS FOR PROJECT ENERGY CHARGE:

4.1. The Project Energy Charge established in Section 2.3 will be in effect for the Term, unless otherwise agreed upon by both parties, in accordance with the terms and conditions of the Agreement.

4.2. At the mutual consent of both parties, the Project Energy Charge may be revised to reflect changes in the life cycle cost of the Project with the removal and replacement of battery storage components in approximately year 16 of the Project's life cycle.

4.3. Any Agreement amendment will be subject to NMPRC review and approval.

ARTICLE 5. TEST POWER:

5.1. Any Test Power that is delivered to the Project Power Point of Delivery prior to the Commercial Operation Date will be billed pursuant to Article 3 above.

ARTICLE 6. PROJECT CREDITS:

6.1. During the Summer Months, a capacity credit will be provided to NMSU, equal to the maximum metered 30-minute output of the Project, as measured during the hours between 12:00 pm to 6:00 pm (MPT), Monday through Friday, multiplied by the Avoided Capacity Credit, which is initially set at the avoided capacity cost used to determine the cost effectiveness of EPE's most recently NMPRC-approved Energy Efficiency and Load Management Plan, NMPRC Case No. 18-00116-UT. Avoided Capacity Credits for calendar years applicable to the Term but not included in Attachment 1, will utilize the amount projected for calendar year 2045. The Avoided Capacity Credits applicable for each calendar year of the Term are provided in Attachment 1 to this Exhibit A and will not be adjusted during the Term except as part of the Periodic Review.

6.2. An energy credit will be provided to NMSU for all Project Power delivered to the Project Power Point of Delivery during the billing cycle multiplied by the non-fuel variable energy rate, currently calculated as $0.007255 per kWh, based on the non-fuel variable energy cost of supplying power embedded in Rate No. 26 charges ("Energy Credit"). The Energy Credit is subject to change in EPE's future base rate proceedings.

ARTICLE 7. PERIODIC REVIEW OF PROJECT ECONOMICS:

7.1. It is the expectation of both NMSU and EPE that the net economic impact to NMSU of the Project will be net cost neutral or positive over the Term. NMSU and EPE expressly agree that the rates and credits included in this Exhibit A provide for an expected net cost neutral or positive impact on a NPV basis to NMSU at the conclusion of the Term based on the forecasts agreed to by both Parties herein.

7.2. NMSU and EPE agree to meet no less than once every five years on the anniversary of the Commercial Operation Date, or at another such time as mutually agreed to by both Parties, to review the net cash flow performance of the Project and to adjust, if necessary, the Avoided Capacity Credit to ensure that the expected NPV of the Project will be a net cost neutral or positive impact to NMSU over the Term ("Periodic Review").

7.3. For purposes of reviewing and adjusting rates and credits in the analysis of the net cost neutral or positive target, the Parties agree to the following:

7.3.01 Attachment 2 to this Exhibit A represents the expected cash flow economic model to be used to determine the net impact to NMSU.

7.3.02 For purposes of the updated NPV calculations, the Historical Period is defined as the term of the Project up to the year in which the NPV review is performed.

7.3.03 Actual Project Power and the actual Summer Month's Project Contribution will be utilized for the Historical Period, and an updated forecast for the remaining Term of the Project may be used if the prior forecast is determined to be no longer representative of future Project output.

7.3.04 The Project Energy Charge will not change over the Term except to the extent Project costs are adjusted in year 16 of the Project's life cycle for battery replacement pursuant to Section 4.2 of this Exhibit A.

7.3.05 Actual RPS Rider, FPPCAC, and Energy Credit rates will be utilized for the Historical Period, and an updated forecast for the remaining Term of the Project may be used if the prior forecast is determined to be no longer representative of future rate and rider charges.

7.3.06 Avoided Capacity Credits from Attachment 1 or the most recently updated Attachment 1 to this Exhibit A developed by EPE and NMSU in accordance with any previous Periodic Review will represent the updated forecast of Avoided Capacity Credits for the remaining Term.

7.3.07 Based on Historical Period and forecasted Project production, rates, and credits, NPV of cash flows for the entire Term will be recalculated.

7.3.08 In the event the expected NPV of cash flows for the Project over the Term is determined to be negative, calculated as of the Commercial Operation Date, during any Periodic Review, Attachment 1 to this Exhibit A will be scaled for the remaining Term to maintain an expected net cost neutral impact to NMSU.

7.3.09 Six months after the Term and decommissioning of the Project, EPE will provide a Balance of Agreement Payment to NMSU, if necessary. For the avoidance of doubt, if the Project over the Term is cost neutral or positive to NMSU, EPE will not owe a Balance of Agreement Payment to NMSU.

ARTICLE 8. ALL OTHER TERMS AND CONDITIONS:

8.1. In all other respects, EPE and NMSU agree to be bound by and comply with all terms and conditions of EPE's New Mexico tariffs, except to the extent those terms and conditions are inconsistent with the express terms and conditions set forth in this Exhibit A as it is approved by the NMPRC.

8.2. The rates calculated as listed above will be in effect for the Term, unless otherwise agreed upon by both parties to the Agreement, in accordance with the terms and conditions of the Agreement.

8.3. Definitions.

8.3.01 "**Avoided Capacity Credit**" has the meaning given in Section 6.1 of this Exhibit A.

8.3.02 **"Balance of Agreement Payment"** means an amount due to NMSU that is the difference between zero and the actual net cost of the Project to NMSU, calculated on a NPV basis as of the Commercial Operation Date, at the end of the Term.

8.3.03 **"Energy Credit"** has the meaning given in Section 6.2 of this Exhibit A.

8.3.04 **"Energy Efficiency and Load Management Plan"** means that application and related reports filed with the NMPRC in accordance with section 17.7.2 NMAC.

8.3.05 **"FPPCAC"** has the meaning given in Section 1.6 of this Exhibit A.

8.3.06 **"Historical Period"** has the meaning given in Section 7.3.02 of this Exhibit A.

8.3.07 **"NPV"** means net present value.

8.3.08 **"Periodic Review"** has the meaning given in Section 7.2 of this Exhibit A.

8.3.09 **"Project Credit"** means the combination of the Energy Credit and the Avoided Capacity Credit.

8.3.10 **"Project Energy Charge"** means a charge for Project Power on a per kWh basis as described in Article 2 of this Exhibit A.

8.3.11 **"Rate 26 Demand Charge"** means the demand charge in Rate 26.

8.3.12 **"Rate 26 Energy Charges"** means the energy charges in Rate 26.

8.3.13 **"RPS Rider"** has the meaning given in Section 1.6 of this Exhibit A.

8.3.14 **"Summer Month's Contribution"** means the maximum metered 30-minute output of the Project during each Summer Month as measured between the hours of 12:00 pm to 6:00 pm (MPT), Monday through Friday.

ATTACHMENT 1
AVOIDED CAPACITY CREDIT TABLE

Table 86: Avoided Costs

Year	Avoided Energy ($/kWh)	Avoided Capacity ($/kW)
2019	$0.0144	$96.69
2020	$0.0159	$98.64
2021	$0.0163	$100.62
2022	$0.0167	$102.64
2023	$0.0158	$104.71
2024	$0.0158	$106.82
2025	$0.0161	$108.78
2026	$0.0171	$110.77
2027	$0.0174	$112.81
2028	$0.0178	$114.88
2029	$0.0182	$117.11
2030	$0.0185	$119.39
2031	$0.0189	$121.72
2032	$0.0193	$124.09
2033	$0.0197	$126.51
2034	$0.0202	$128.97
2035	$0.0206	$131.49
2036	$0.0210	$134.05
2037	$0.0215	$136.66
2038	$0.0219	$139.32
2039	$0.0224	$142.03
2040	$0.0229	$144.80
2041	$0.0234	$147.62
2042	$0.0239	$150.50
2043	$0.0244	$153.43
2044	$0.0249	$156.42
2045	$0.0254	$159.47

ATTACHMENT 2
TERM NET PRESENT VALUE

ATTACHMENT 1
Term Net Present Value (FPPCAC Energy Cost)

A	B	C	D	E	F=C*E	G	H=C*G	I	J=C*I	K	L=C*K	M	N=D*M	O=F+H+J+L+N	P
Yr	Actual / Estimate	Annual Project Power kWh	Total Peak Project Contribution kW	Project Power Rate $/kWh	Project Costs $	RPS Rider $/kWh	Avoided RPS Cost $	Fuel Credit Rate $/kWh	Avoided Fuel Cost $	Base Rate Non-Fuel Variable Cost $/kWh	Base Rate Non-Fuel Variable Credit $	Avoided Capacity Cost $/kW-yr	Avoided Capacity Credit $	Net Cost $	Net Present Value $
1	Estimate	8,764,634	3,604.80	$ 0.08289	$ 726,501	$ 0.010154	$ (88,996)	$ 0.01926	$ (168,789)	$ 0.007255	$ (63,591)	$ 98.64	$ (355,578)	$ 49,547	$ 46,314
2	Estimate	8,723,550	3,587.90	0.08289	723,095	0.010154	(88,579)	0.01959	(170,859)	0.007255	(63,293)	100.62	(361,015)	39,349	34,381
3	Estimate	8,662,044	3,562.61	0.08289	717,997	0.010154	(87,954)	0.01992	(172,548)	0.007255	(62,846)	102.64	(365,666)	28,982	23,671
4	Estimate	8,599,792	3,537.00	0.08289	712,837	0.010154	(87,322)	0.02026	(174,223)	0.007255	(62,395)	104.71	(370,360)	18,537	14,152
5	Estimate	8,538,704	3,511.88	0.08289	707,773	0.010154	(86,702)	0.02060	(175,931)	0.007255	(61,951)	106.82	(375,139)	8,046	5,744
6	Estimate	8,477,951	3,486.89	0.08289	702,737	0.010154	(86,085)	0.02096	(177,655)	0.007255	(61,511)	108.78	(379,304)	(1,818)	(1,213)
7	Estimate	8,417,561	3,462.05	0.08289	697,732	0.010154	(85,472)	0.02131	(179,395)	0.007255	(61,073)	110.77	(383,492)	(11,700)	(7,295)
8	Estimate	8,357,591	3,437.39	0.08289	692,761	0.010154	(84,863)	0.02168	(181,151)	0.007255	(60,637)	112.81	(387,772)	(21,662)	(12,625)
9	Estimate	8,297,063	3,412.49	0.08289	687,744	0.010154	(84,248)	0.02201	(182,900)	0.007255	(60,198)	114.88	(392,027)	(31,631)	(17,232)
10	Estimate	8,237,954	3,388.18	0.08289	682,844	0.010154	(83,648)	0.02242	(184,695)	0.007255	(59,769)	117.11	(396,790)	(42,059)	(21,418)
11	Estimate	8,179,098	3,363.98	0.08289	677,965	0.010154	(83,051)	0.02280	(186,500)	0.007255	(59,342)	119.39	(401,625)	(52,552)	(25,016)
12	Estimate	8,120,683	3,339.95	0.08289	673,123	0.010154	(82,457)	0.02319	(188,319)	0.007255	(58,919)	121.72	(406,539)	(63,110)	(28,081)
13	Estimate	8,062,673	3,316.09	0.08289	668,315	0.010154	(81,868)	0.02359	(190,158)	0.007255	(58,498)	124.09	(411,494)	(73,709)	(30,654)
14	Estimate	8,004,145	3,292.02	0.08289	663,464	0.010154	(81,274)	0.02399	(191,995)	0.007255	(58,073)	126.51	(416,473)	(84,352)	(32,794)
15	Estimate	7,946,937	3,268.49	0.08289	658,722	0.010154	(80,693)	0.02440	(193,866)	0.007255	(57,658)	128.97	(421,537)	(95,032)	(34,535)
16	Estimate	7,877,797	3,240.05	0.08289	652,991	0.010154	(79,991)	0.02481	(195,456)	0.007255	(57,156)	131.49	(426,035)	(105,648)	(35,888)
17	Estimate	7,842,921	3,225.71	0.08289	650,100	0.010154	(79,637)	0.02523	(197,900)	0.007255	(56,903)	134.05	(432,407)	(116,748)	(37,070)
18	Estimate	7,787,579	3,202.95	0.08289	645,512	0.010154	(79,075)	0.02566	(199,853)	0.007255	(56,502)	136.66	(437,715)	(127,632)	(37,882)
19	Estimate	7,745,425	3,185.61	0.08289	642,018	0.010154	(78,647)	0.02610	(202,156)	0.007255	(56,196)	139.32	(443,819)	(138,800)	(38,508)
20	Estimate	7,676,439	3,157.24	0.08289	636,300	0.010154	(77,947)	0.02655	(203,771)	0.007255	(55,695)	142.03	(448,423)	(149,536)	(38,779)
21	Estimate	7,621,722	3,134.73	0.08289	631,765	0.010154	(77,391)	0.02700	(205,764)	0.007255	(55,298)	144.80	(453,909)	(160,598)	(38,930)
22	Estimate	7,567,326	3,112.36	0.08289	627,256	0.010154	(76,839)	0.02746	(207,776)	0.007255	(54,904)	147.62	(459,447)	(171,710)	(38,968)
23	Estimate	7,513,307	3,090.14	0.08289	622,778	0.010154	(76,290)	0.02793	(209,809)	0.007255	(54,512)	150.50	(466,067)	(182,900)	(38,739)
24	Estimate	7,458,689	3,067.68	0.08289	618,251	0.010154	(75,736)	0.02840	(211,827)	0.007255	(54,116)	153.43	(470,674)	(194,101)	(38,428)
25	Estimate	7,405,468	3,045.78	0.08289	613,838	0.010154	(75,195)	0.02888	(213,899)	0.007255	(53,729)	156.42	(476,421)	(205,407)	(38,013)
26	Estimate	7,352,420	3,023.97	0.08289	609,442	0.010154	(74,656)	0.02938	(215,985)	0.007255	(53,345)	159.47	(482,233)	(216,777)	(37,499)
27	Estimate	7,299,792	3,002.33	0.08289	605,080	0.010154	(74,122)	0.02988	(218,086)	0.007255	(52,963)	159.47	(478,781)	(218,882)	(35,393)
28	Estimate	7,247,528	2,980.83	0.08289	600,748	0.010154	(73,591)	0.03039	(220,216)	0.007255	(52,584)	159.47	(475,353)	(220,997)	(33,403)
29	Estimate	7,194,707	2,959.11	0.08289	596,369	0.010154	(73,055)	0.03090	(222,338)	0.007255	(52,200)	159.47	(471,889)	(223,113)	(31,522)
30	Estimate	7,143,164	2,937.91	0.08289	592,097	0.010154	(72,532)	0.03143	(224,503)	0.007255	(51,826)	159.47	(468,508)	(225,272)	(29,750)

From 15-00127-UT

Non-Fuel Energy-Related Costs ('000's)	$	12,134
Test Period Determinants (MWh)		1,607,587
TCJA Credit in effect		3.8756%
Non-Fuel Variable Cost $/kWh	$	0.00726

Discount Rate: 6.98%
NPV: (5635,314)

Description:

A Year of estimate
C Estimated annual energy production from NMSU Project, including the operation of the battery. Assumes annual average degradation of 0.7% per year.
D Estimated maximum output of NMSU Project during on-peak periods, in the months of May through October. Based on estimated annual production from Column C.
E Monthly Rate for Project Power, rate per kWh of production (i.e. levelized cost of energy).
G RPS Rider No. 38, as of January 1, 2019.
I FPPCAC Rider No. 18, monthly weighted average rate per kWh, based on actual rates billed in 2018 at primary voltage level. Includes an annual escalator of 1.7%.
K Non-Fuel Variable Cost from 15-00127-UT, system average rate adjusted for the Federal Tax Cuts and Jobs Act of 2017.
M Capacity Generation Credit based on projected Avoided Capacity Costs in EE/LM Plan filing approved in 18-00116-UT. Starting value as projected for 2020.
O Estimated Net Cost to NMSU
P Projected Net Present Value (in Year 0), at a discount rate of 6.98% (i.e., EPE's WACC)

ATTACHMENT 3
RATE 26

JUN 20 '15 PM 3:17

EL PASO ELECTRIC COMPANY

SEVENTH REVISED RATE NO. 26
CANCELLING SIXTH REVISED RATE NO. 26

STATE UNIVERSITY SERVICE RATE

APPLICABILITY:

This rate schedule is available to any public college or university's main campus for lighting, power and heating service. The Customer and the Company will determine whether a Customer qualifies for this rate schedule. A Customer qualifies for this rate schedule if the expected monthly demand will exceed 6,000 kilowatts (kW). A contract may be required in order to take service under this rate schedule.

TERRITORY:

Areas served by the Company in Dona Ana, Sierra, Otero and Luna Counties.

TYPE OF SERVICE:

Service available under this rate schedule will be determined by the Company and will be three phase at a standard Company approved voltage. All service will be taken at a single point of delivery designated by the Company.

MONTHLY RATES:

Customer Charge (per meter per month)	$135.00

Demand and Energy Charges	Summer (June through September)	Winter (October through May)
Demand Charge per Billing kW	$16.71	$8.85
Energy Charge per kWh: On-Peak	$0.09124	------
Energy Charge per kWh: Off Peak	$0.00428	$0.00428

The On-Peak Period shall be from 12:00 P.M. to 6:00 P.M, Mountain Daylight Time, Monday through Friday, for the months of June through September.

The Off-Peak Period shall be all other hours of the week not covered in the On-Peak Period.

MONTHLY MINIMUM CHARGE:

The Customer Charge plus applicable Demand Charge plus Tax Adjustment.

EFFECTIVE

JUL - 1 2016

REPLACED BY NMPRC

Final Order Case No. 15-00127-UT

Advice Notice No. 239

Signature/Title Nathan T. Hirschi

Nathan T. Hirschi
Senior Vice President - CFO

EL PASO ELECTRIC COMPANY

SEVENTH REVISED RATE NO. 26 X
CANCELLING SIXTH REVISED RATE NO. 26 X

STATE UNIVERSITY SERVICE RATE

DETERMINATION OF BILLING DEMAND:

Maximum demand will be defined as the highest thirty (30) minute average kilowatt load determined by measurement.

The billing demand will be the highest of:

(a) the maximum demand, adjusted by the Meter Voltage Adjustment, if applicable, or X
(b) 65 percent of the highest measured demand established during the twelve (12) month period ending with the current month, or X
(c) a minimum of 6,000 kW.

X

POWER FACTOR ADJUSTMENT:

If the power factor at the time of the highest thirty (30) minute interval kilowatt demand for the entire plant is below 90% lagging, a power factor adjustment shall be calculated as follows:

ADJ = ((kW x .95 / PF) – kW) x DC, where
ADJ = Increase to applicable Demand Charge,
kW = Monthly Measured Demand, X
PF = Monthly measured Power Factor, and
DC = Demand Charge.

If the power factor measurement is greater than or equal to 90%, then no power factor adjustment will be made. X

METER VOLTAGE ADJUSTMENT: X

If electric service is delivered on the high voltage side of a Customer-supplied transformer, but metered on the low voltage side of the transformer, the following meter adjustments shall be made: X X X

Adjusted Maximum kW Demand = Metered Maximum kilowatts multiplied by 1.014 X
Billing kilowatt-hours = Metered kilowatt-hours multiplied by 1.020 X

If electric service is delivered on the low voltage side of a Company-owned transformer and metered on the high voltage side of the transformer, the following meter adjustments shall be made: X X X

EFFECTIVE

JUL – 1 2016

REPLACED BY NMPRC
BY Final Order Case No. 15-00127-UT

Advice Notice No. 239

Signature/Title

Nathan T. Hirschi
Senior Vice President - CFO

EL PASO ELECTRIC COMPANY

SEVENTH REVISED RATE NO. 26
CANCELLING SIXTH REVISED RATE NO. 26

STATE UNIVERSITY SERVICE RATE

Adjusted Maximum kW Demand = Metered Maximum kilowatts divided by 1.014
Billing kilowatt-hours = Metered kilowatt-hours divided by 1.020

FUEL AND PURCHASE POWER COST ADJUSTMENT CLAUSE (FPPCAC):

All service taken under this rate schedule is subject to the provisions of the Company's Rate Schedule No. 18 (FPPCAC).

TAX ADJUSTMENT:

Billings under this rate schedule may be increased by an amount equal to the sum of taxes payable under the Gross Receipts and Compensating Tax Act and of all other taxes, fees or charges (exclusive of ad valorem, state and federal income taxes) payable by the utility and levied or assessed by any governmental authority on the public utility service rendered, or on the right or privilege of rendering the service, or on any object or event incidental to the rendition of the service.

TERMS OF PAYMENT:

All bills under this rate schedule are due and payable when rendered and become delinquent twenty (20) calendar days thereafter. If the twentieth day falls on a holiday or weekend, the next Company business day will apply.

TERMS AND CONDITIONS:

Service supplied under this rate schedule is subject to the Company's Rules and Regulations on file with the New Mexico Public Regulation Commission and available for inspection at Company offices.

EFFECTIVE

JUL - 1 2016

REPLACED BY NMPRC

Final Order Case No. 15-00127-UT

Advice Notice No. 239

Signature/Title

Nathan T. Hirschi
Senior Vice President - CFO

NMSU Project Plant Economic and Revenue Requirement Analysis

3MW Solar Plus 1 MW/4 MWh Battery

Levelized Cost of Energy (LCOE) per kW

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
		Plant Investment				Return Of	Return On		Income Taxes			Operating Expenses			
	Year	Plant in Service	Accumulated Depreciation	Accumulated Def Tax	Net Plant in Service	Book Depreciation	Debt Return	Equity Return	Current Taxes	Deferred Taxes	Total Income Taxes	O&M & Other Exp	Total Nominal Costs by Year	Annual Output (MWh)	
1	2017	$2,612.74			$2,612.74	$ 87.09	$ 78.20	$ 122.08	$ (879.45)	$ 99.59	$ (779.86)	$37.69	$ (454.80)	8,765	1
2	2018		$ 87.09	$ 99.59	2,426.06	87.09	72.61	113.36	(107.12)	171.29	64.17	37.47	374.71	8,724	2
3	2019		174.18	270.88	2,167.68	87.09	64.88	101.29	(46.44)	94.81	48.37	37.24	338.87	8,662	3
4	2020		261.27	365.69	1,985.78	87.09	59.44	92.79	(10.40)	48.92	38.51	37.14	314.97	8,600	4
5	2021		348.37	414.61	1,849.77	87.09	55.36	86.43	(12.29)	48.92	36.63	37.03	302.55	8,539	5
6	2022		435.46	463.53	1,713.76	87.09	51.29	80.08	14.74	14.50	29.24	36.93	284.64	8,478	6
7	2023		522.55	478.03	1,612.17	87.09	48.25	75.33	42.25	(19.92)	22.34	36.83	269.84	8,418	7
8	2024		609.64	458.11	1,544.99	87.09	46.24	72.19	41.32	(19.92)	21.41	36.73	263.66	8,358	8
9	2025		696.73	438.19	1,477.82	87.09	44.23	69.05	40.39	(19.92)	20.48	36.63	257.48	8,297	9
10	2026		783.82	418.27	1,410.65	87.09	42.22	65.91	39.46	(19.92)	19.54	36.54	251.31	8,238	10
11	2027		870.91	398.36	1,343.47	87.09	40.21	62.78	38.53	(19.92)	18.61	36.44	245.13	8,179	11
12	2028		958.01	378.44	1,276.30	87.09	38.20	59.64	37.60	(19.92)	17.68	36.35	238.96	8,121	12
13	2029		1,045.10	358.52	1,209.12	87.09	36.19	56.50	36.67	(19.92)	16.75	36.26	232.79	8,063	13
14	2030		1,132.19	338.60	1,141.95	87.09	34.18	53.36	35.74	(19.92)	15.82	37.03	227.49	8,004	14
15	2031		1,219.28	318.68	1,074.78	87.09	32.17	50.22	34.81	(19.92)	14.89	62.83	247.20	7,947	15
16	2032		1,306.37	298.77	1,007.60	87.09	30.16	47.08	33.88	(19.92)	13.96	877.17	1055.46	7,878	16
17	2033		1,393.46	278.85	940.43	87.09	28.15	43.94	32.95	(19.92)	13.03	39.49	211.71	7,843	17
18	2034		1,480.55	258.93	873.26	87.09	26.14	40.80	32.02	(19.92)	12.10	40.36	206.49	7,788	18
19	2035		1,567.65	239.01	806.08	87.09	24.13	37.67	31.09	(19.92)	11.17	41.24	201.29	7,745	19
20	2036		1,654.74	219.10	738.91	87.09	22.12	34.53	30.16	(19.92)	10.24	42.15	196.12	7,676	20
21	2037		1,741.83	199.18	671.74	87.09	20.11	31.39	29.22	(19.92)	9.31	43.09	190.98	7,622	21
22	2038		1,828.92	179.26	604.56	87.09	18.09	28.25	28.29	(19.92)	8.38	44.04	185.85	7,567	22
23	2039		1,916.01	159.34	537.39	87.09	16.08	25.11	27.36	(19.92)	7.45	45.03	180.76	7,513	23
24	2040		2,003.10	139.42	470.22	87.09	14.07	21.97	26.43	(19.92)	6.51	46.04	175.69	7,459	24
25	2041		2,090.19	119.51	403.04	87.09	12.06	18.83	25.50	(19.92)	5.58	47.07	170.64	7,405	25
26	2042		2,177.29	99.59	335.87	87.09	10.05	15.69	24.57	(19.92)	4.65	48.14	165.63	7,352	26
27	2043		2,264.38	79.67	268.69	87.09	8.04	12.56	23.64	(19.92)	3.72	49.23	160.64	7,300	27
28	2044		2,351.47	59.75	201.52	87.09	6.03	9.42	22.71	(19.92)	2.79	50.35	155.68	7,248	28
29	2045		2,438.56	39.84	134.35	87.09	4.02	6.28	21.78	(19.92)	1.86	51.50	150.75	7,195	29
30	2046		2,525.65	19.92	67.17	87.09	2.01	3.14	20.85	(19.92)	0.93	52.68	145.86	7,143	30
31	2047		2,612.74	(0.00)	0.00										31
32															32
33												After Tax Weighted Average Cost of Capital	6.98%		33
34															34
35												Present Value of Annual Revenue Requirements	$8,457,216		35
36															36
37												Discounted Energy (kWh)	102,023,547		37
38															38
39												Levelized Cost of Energy per kW	$2,819.07		39
40												Levelized Cost of Energy per kWh	$ 0.08289		40

EPE Exhibit JCA-2
Page 1 of 1

NMSU Project Bill Impact Analysis

3MW Solar Plus 1 MW/4 MWh Battery

Estimated bill BEFORE the NMSU Project

Month	Billing Date	Recorded Billed Usage for 2018: On-Peak Energy (kWh)	Off-Peak Energy (kWh)	Total Energy Usage (kWh)	Peak kW	Total Non-Fuel Bill	Estimated NMSU Project Power: Energy (kWh)	Peak Capacity (kW)	Riders and NMSU Project Charges and Credits: FPPCAC Rider 18	RPS Rider 38	Project Power Charges (LCOE)	Generation Capacity Credit	Non-Fuel Variable Cost Credit	Total Bill**
January	1/25/2018	-	1,660,548	1,660,548	6,251	$ 62,563.50			$ 42,131.42	$ 16,525.77				$ 121,220.70
February	2/23/2018	-	2,131,896	2,131,896	6,000	$ 62,359.51			$ 39,717.22	$ 21,216.63				$ 123,293.36
March	3/23/2018	-	1,946,066	1,946,066	6,585	$ 66,741.41			$ 44,794.55	$ 19,367.25				$ 130,903.21
April	4/25/2018	-	2,434,880	2,434,880	6,300	$ 66,311.29			$ 44,855.36	$ 24,231.93				$ 135,398.58
May	5/24/2018	-	5,480,315	5,480,315	10,721	$ 118,471.60			$ 71,381.10	$ 54,540.09				$ 244,392.80
June	6/22/2018	546,225	4,075,396	4,621,621	10,860	$ 248,885.86			$ 90,810.23	$ 45,994.37				$ 385,690.46
July	7/24/2018	810,713	2,248,512	3,059,225	10,067	$ 251,947.65			$ 90,439.87	$ 30,445.41				$ 372,832.93
August	8/23/2018	795,790	3,312,986	4,108,776	8,807	$ 234,087.43			$ 100,430.81	$ 40,890.54				$ 375,408.78
September	9/25/2018	749,305	3,043,208	3,792,513	8,404	$ 221,957.36			$ 66,672.38	$ 37,743.09				$ 326,372.83
October	10/24/2018	183,700	3,036,912	3,220,612	10,461	$ 122,473.62			$ 35,520.13	$ 32,051.53				$ 190,045.28
November	11/27/2018	-	1,916,180	1,916,180	7,059	$ 70,808.40			$ 21,237.02	$ 19,069.82				$ 111,115.25
December	12/26/2018	-	1,762,389	1,762,389	8,598	$ 83,770.32			$ 32,142.45	$ 17,539.30				$ 133,452.07
		3,085,733	**33,049,288**	**36,135,021**			-		**$ 680,132.55**	**$ 359,615.73**	**$ -**	**$ -**	**$ -**	**$ 2,650,126.23**

Estimated bill AFTER the NMSU Project

Month	Billing Date	Recorded Billed Usage for 2018: On-Peak Energy (kWh)	Off-Peak Energy (kWh)	Total Energy Usage (kWh)	Peak kW	Total Non-Fuel Bill	Estimated NMSU Project Power: Energy (kWh)*	Peak Capacity (kW)*	Riders and NMSU Project Charges and Credits: FPPCAC Rider 18	RPS Rider 38	Project Power Charges (LCOE)	Generation Capacity Credit	Non-Fuel Variable Cost Credit	Total Bill**	Net % Impact
January	1/25/2018	-	1,660,548	1,660,548	6,251	$ 62,563.50	401,088	-	$ 31,955.02	$ 12,534.15	$ 33,248.09	$ -	$ (2,910.03)	$ 137,390.72	13.34%
February	2/23/2018	-	2,131,896	2,131,896	6,000	$ 62,359.51	588,010	-	$ 28,762.59	$ 15,364.75	$ 48,742.96	$ -	$ (4,266.22)	$ 150,963.59	22.44%
March	3/23/2018	-	1,946,066	1,946,066	6,585	$ 66,741.41	776,399	-	$ 26,923.40	$ 11,640.53	$ 64,359.40	$ -	$ (5,633.04)	$ 164,031.69	25.31%
April	4/25/2018	-	2,434,880	2,434,880	6,300	$ 66,311.29	822,061	-	$ 29,711.35	$ 16,050.77	$ 68,144.54	$ -	$ (5,964.34)	$ 174,253.62	28.70%
May	5/24/2018	-	5,480,315	5,480,315	10,721	$ 118,471.60	987,826	3,827	$ 58,514.67	$ 44,709.25	$ 81,885.56	$ (62,923.17)	$ (7,167.02)	$ 233,490.90	-4.46%
June	6/22/2018	546,225	4,075,396	4,621,621	10,860	$ 248,885.86	938,690	3,865	$ 72,365.91	$ 36,652.53	$ 77,812.48	$ (63,539.12)	$ (6,810.52)	$ 365,367.14	-5.27%
July	7/24/2018	810,713	2,248,512	3,059,225	10,067	$ 251,947.65	897,684	3,622	$ 63,901.64	$ 21,511.66	$ 74,413.29	$ (59,543.87)	$ (6,513.01)	$ 345,717.35	-7.27%
August	8/23/2018	795,790	3,312,986	4,108,776	8,807	$ 234,087.43	818,447	3,586	$ 80,425.50	$ 32,745.35	$ 67,845.00	$ (58,952.96)	$ (5,938.12)	$ 350,212.20	-6.71%
September	9/25/2018	749,305	3,043,208	3,792,513	8,404	$ 221,957.36	766,158	3,481	$ 53,203.32	$ 30,118.28	$ 63,510.50	$ (57,231.46)	$ (5,558.74)	$ 305,999.26	-6.24%
October	10/24/2018	183,700	3,036,912	3,220,612	10,461	$ 122,473.62	635,207	3,247	$ 28,514.44	$ 25,729.95	$ 52,655.30	$ (53,387.04)	$ (4,608.64)	$ 171,377.63	-9.82%
November	11/27/2018	-	1,916,180	1,916,180	7,059	$ 70,808.40	608,128	-	$ 14,497.15	$ 13,017.74	$ 50,410.58	$ -	$ (4,412.17)	$ 144,321.69	29.88%
December	12/26/2018	-	1,762,389	1,762,389	8,598	$ 83,770.32	524,936	-	$ 22,568.67	$ 12,315.13	$ 43,514.44	$ -	$ (3,808.59)	$ 158,359.97	18.66%
		3,085,733	**33,049,288**	**36,135,021**			**8,764,634**		**$ 511,343.64**	**$ 272,390.09**	**$ 726,542.12**	**$ (355,577.61)**	**$ (63,590.44)**	**$ 2,701,485.74**	
	Difference								**$ (168,788.91)**	**$ (87,225.64)**	**$ 726,542.12**	**$ (355,577.61)**	**$ (63,590.44)**	**$ 51,359.52**	**1.94%**

Note:

*Based on estimated production using calendar days. Actual peak may vary with billing data.

**Bills do not include the Efficient Use of Energy Rider No. 17 nor the Federal Tax Credit Factor.

@ $98.64 /kW/Year
@ $16.44 /kW/Month (May-Oct)

EPE Exhibit JCA-3
Page 1 of 1

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF EL PASO ELECTRIC COMPANY'S APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A SOLAR GENERATION/STORAGE PROJECT AT NEW MEXICO STATE UNIVERSITY AND FOR APPROVAL OF A SPECIAL RATE CONTRACT)		**No. 19-00252-UT**
EL PASO ELECTRIC COMPANY, Applicant.		

AFFIDAVIT

STATE OF TEXAS)
) ss.
COUNTY OF EL PASO)

I, **Julio C. Aguirre,** hereby depose and state under oath that the information contained in the foregoing Direct Testimony of Julio C. Aguirre, together with all exhibits sponsored therein and attached thereto, is true and accurate based on my knowledge and belief.

SIGNED this 5th day of November, 2019.

JULIO C. AGUIRRE

SIGNED AND SWORN to before me on 5th day of November, 2019 by Julio C. Aguirre.

NOTARY PUBLIC

My commission expires:
June 20, 2022

LINDA PLEASANT
Notary Public, State of Texas
Comm. Expires 06-20-2022
Notary ID 13161360-1