CONTRACT NO. 16-DSR-12708

AMONG

UNITED STATES
DEPARTMENT OF ENERGY
WESTERN AREA POWER ADMINISTRATION
Desert Southwest Customer Service Region
Pacific Northwest-Pacific Southwest Intertie Project

SOUTHERN CALIFORNIA EDISON COMPANY

NEVADA POWER COMPANY d/b/a NV ENERGY

AND

THE DEPARTMENT OF WATER AND POWER FOR THE CITY OF LOS ANGELES

FOR

OPERATION, MAINTENANCE, REPLACEMENT (OM&R), OWNERSHIP, AND INTERCONNECTIONS AT MEAD SUBSTATION

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FOR

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1. **PREAMBLE**: This Contract No. 16-DSR-12708 (Contract) is made this _____ day of _____, 20__, pursuant to the Acts of Congress approved June 17, 1902 (32 Stat. 388); August 4, 1939 (53 Stat. 1187); August 31, 1964 (78 Stat. 756); August 4, 1977 (91 Stat. 565); August 17, 1984 (98 Stat. 1333); and Acts amendatory or supplementary to the foregoing Acts, among (i) the UNITED STATES OF AMERICA, Department of Energy, acting by and through the Administrator, Western Area Power Administration (WAPA and/or Western), represented by the officer executing this Contract or a duly appointed successor; (ii) SOUTHERN CALIFORNIA EDISON COMPANY, a corporation organized and existing under the laws of the State of California (SCE); (iii) Nevada Power Company d/b/a NV ENERGY, a corporation organized and existing under the laws of the State of Nevada (NVE); and (iv) the Department of Water and Power for the City of Los Angeles, a department organized and

existing under the Charter of the City of Los Angeles (LADWP), a municipal corporation of the State of California, individually and as successor-in-interest to Salt River Project Agricultural Improvement and Power District (SRP). SCE, NVE, and LADWP, and their respective successors and assigns in the Eldorado System, are collectively referred to herein as the Eldorado Co-Owners and/or Contractor. WAPA, individually, and the Eldorado Co-Owners, collectively, are each sometimes referred to as Party, and together as the Parties. All references to SCE herein shall be in its role as the operating agent for all of the Eldorado System and acting on behalf of the Eldorado Co-Owners.

2. **EXPLANATORY RECITALS**:

2.1. WAPA operates and maintains an electrical system known as the Pacific Northwest-Pacific Southwest Intertie Project Transmission System (Intertie Transmission System) and Mead Substation is a facility that is part of the Intertie Transmission System. Mead Substation is owned and operated by WAPA.

2.2. WAPA and SCE entered into Contract No. 14-06-300-1871, dated July 31, 1967, which provides for the Mead Substation Interconnection for two (2) 230-kV transmission lines that extend from Eldorado Substation to Mead Substation (the Eldorado-Mead No. 1 and No. 2 transmission lines, also referred to herein as the Eldorado-Mead Lines). Contract No. 14-06-300-1871 expires on May 31, 2017.

2.3. On July 1, 2016, SRP's ownership interest in the Eldorado System was sold to LADWP pursuant to the Asset Purchase and Sale Agreement, dated July 24, 2015, by and between SRP and LADWP.

2.4. The Eldorado Co-Owners have entered into that certain Amended & Restated Eldorado System Co-Tenancy and Operating Agreement (Co-Tenancy and

Operating Agreement) that provides for, among other things, ownership and operation of the Eldorado-Mead Lines. Currently, SCE serves as Operating Agent pursuant to the Co-Tenancy and Operating Agreement.

2.5. SCE and WAPA desire to allow Contract No. 14-06-300-1871 to terminate on May 31, 2017, and for the Eldorado Co-Owners to enter into this Contract with WAPA on June 1, 2017. The Parties intend for this Contract to replace Contract No. 14-06-300-1871 and provide for the ownership, OM&R of facilities, use of Common Facilities, the interconnections, financial responsibilities, and sharing of responsibilities at Mead Substation.

2.6. The Parties agree to the terms and conditions set forth herein.

3. **DEFINITIONS**:

3.1. **Annual Work Plan** is the plan for the Routine Maintenance, developed by WAPA and reviewed by the Eldorado Co-Owners, which WAPA will perform to its own equipment listed in Table 1 of Exhibit A to this Contract, which plan includes the description of the work, the maintenance cycle, and the estimated costs.

3.2. **Balancing Authority** is the responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority Area, and supports interconnection frequency in real time.

3.3. **Balancing Authority Area** is the collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.

3.4. **Common Facilities** are the 230-kV facilities located at Mead Substation and owned by WAPA, including future additions and capital improvements and excluding bays and equipment for line terminations unless used in association with the Pacific Northwest-Pacific Southwest Intertie Project.

3.5. **Contract** refers to this Contract No. 16-DSR-12708, including all exhibits and attachments that are attached hereto.

3.6. **Co-Tenancy and Operating Agreement** has the meaning set forth in the Explanatory Recitals.

3.7. **Eldorado Co-Owners** has the meaning set forth in the Preamble.

3.8. **Eldorado-Mead Lines** refers to the two (2) 230-kV transmission lines that extend from Eldorado Substation to Mead Substation, also referred to as the Eldorado-Mead No. 1 and No. 2 transmission lines.

3.9. **Emergency** is a system condition, which requires immediate manual or automatic action to prevent loss of firm load, loss or endangerment of human life, equipment damage, adverse impact to public safety, or to prevent tripping of the system elements that could adversely affect the reliability of the electric system.

3.10. **Emergency Maintenance** is work immediately required to be performed to end an Emergency.

3.11. **Fiscal Year** is the Federal Government's Fiscal Year, which begins on October 1st and ends on September 30th of each calendar year.

3.12. **Good Utility Practice** is any of the practices, methods, and acts (including but not limited to the practices, methods, and acts engaged in or approved by a significant portion of the electrical utility industry within the operating area of the

Western Electricity Coordinating Council or its successor) which, in the exercise of reasonable judgment in the light of the facts known at the time the decision was made, would have been expected to accomplish the desired result for reliability criteria, safety considerations, and expediency, taking into account design and operational characteristics. Good 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 a spectrum of possible practices, methods, or acts which could have been expected to accomplish the desired result. Good Utility Practice includes due regard for manufacturers' warranties and requirements of governmental agencies of competent jurisdiction and shall apply not only to functional parts, but also to all associated facilities.

3.13. **Last Structure** refers to Structure 0-1, which is the last structure owned by the Eldorado Co-Owners on the Eldorado Nos. 1 and 2 transmission lines at Mead Substation.

3.14. **Major Maintenance** is the unanticipated (not included in the annual work plan) preventive and corrective work, and/or replacements (relating to capitalized equipment) performed on the facilities and/or equipment listed in Table 1 of Exhibit A, including but not limited to improvements, repairs, replacements, or modifications, installation, labor, component parts, and allocable work that is required in excess of the Routine Maintenance or Emergency Maintenance.

3.15. **OM&R** refers to the operation, maintenance, and replacement responsibilities that are identified in this Contract and in Table 1 of Exhibit A, including Routine Maintenance, Major Maintenance, and Emergency Maintenance.

3.16. **Pacific Northwest-Pacific Southwest Intertie Project Transmission System (Intertie Transmission System)** is an electrical system that is operated and maintained by WAPA.

3.17. **Point(s) of Change of Ownership** shall be the points that lie directly west of the 230-kV bus where the conductors of the Eldorado-Mead Lines connect to WAPA's Interconnection Facilities as shown in Figures 1 and 2 of Exhibit A to this Contract.

3.17. **Point(s) of Interconnection** shall mean the point(s) as set forth in Figures 1 and 2 of Exhibit A to this Contract, where WAPA's Interconnection Facilities connect to WAPA's Mead Substation.

3.18. **Routine Maintenance** is preventive and corrective work and/or replacements (relating to capitalized equipment) performed on a Party's facilities and/or equipment and that is included in an Annual Work Plan, including, but not limited to, replacements; labor, materials and miscellaneous small parts; the use of maintenance and test equipment normally available to WAPA; creation of as-built drawings; aerial surveillance; and contract administration including required reporting and meetings to discuss maintenance costs, plans, or contract modifications.

3.19. **Transmission Operator** is the entity responsible for the reliability of its local transmission system, and that operates or directs the operations of the transmission facilities.

3.20 **Western Area Power Administration (WAPA)** is one of four (4) power marketing administrations within the United States Department of Energy which

markets and delivers hydroelectric power and related services within a fifteen (15) state region of the central and western United States.

3.21 **WAPA's Interconnection Facilities** are the facilities and equipment that are owned, controlled, or operated by WAPA from the Point(s) of Change of Ownership to the Point(s) of Interconnection, as indicated in Figures 1 and 2 of Exhibit A to this Contract.

3.22 **WAPA's Transmission System** is WAPA-owned or operated transmission lines, substations, switching stations, and all associated equipment for transmitting or controlling the flow of power and used to provide transmission service.

4. **TERM OF CONTRACT**:

4.1. This Contract shall become effective on June 1, 2017, subject to the execution of the Contract by WAPA and each Eldorado Co-Owner and acceptance of the Contract by the Federal Energy Regulatory Commission (FERC), and shall remain in effect until midnight, September 30, 2067.

4.2. WAPA, on the one hand, or all the Eldorado-Co-owners acting jointly, on the other, may terminate this Contract upon one (1) year advance written notice or such shorter notice period as may be agreed to between the Parties. All obligations pursuant to this Contract incurred prior to its termination shall be preserved until satisfied.

5. **RIGHT OF ENTRY**:

5.1. The Eldorado Co-Owners, under the terms and conditions specified herein, and in accordance with Good Utility Practice, grant WAPA and its authorized employees, agents, and subcontractors, a right to enter and occupy the Eldorado

Co-Owners' property, easements, right(s)-of-way, and associated facilities within the Mead Substation for the purpose of performing work anticipated by this Contract.

5.2. Notice and arrangements must be made with SCE within seventy-two (72) hours in advance for the Eldorado Co-Owners to identify and provide a representative to be on-site while the work is being performed, provided, however that in the event of an Emergency, verbal or written notice will be provided at the earliest practicable time.

5.3. WAPA, under the terms and conditions specified herein, grants SCE, its employees, agents, and subcontractors, the right to enter and occupy WAPA's property, easements, and right(s)-of-way within the Mead Substation to accomplish the work provided for in this Contract, provided advance arrangements are made with WAPA.

5.4. The security regulations associated with entering a WAPA-owned or controlled facility are indicated in Attachment No. 2 to this Contract.

6. **OWNERSHIP**: Ownership of the facilities and/or equipment to be operated, maintained, and replaced pursuant to this Contract shall be listed in Table 1 of Exhibit A, attached hereto.

7. **OUTAGES**: The work being performed under this Contract may result in planned or unplanned outages to WAPA's Transmission System and/or the Eldorado System. Either SCE or WAPA shall provide notification to the other at least seventy-two (72) hours prior to any scheduled work that will impact the interconnection of the others' transmission systems at Mead Substation.

8. **OPERATION OF FACILITIES:**

8.1. SCE and WAPA will confer and obtain concurrence of the operating bulletins or procedures involving switching and clearing procedures that are in place, including SCE's System Operating Bulletin No. 69 (SOB0069 Switching and Clearance Procedures Eldorado-Mead No. 1 and No. 2, 230-kV Lines), as revised. The agreed to operating bulletins or procedures will govern the control and operation of facilities referenced in this Contract.

8.2. Responsibilities for operations of facilities are listed in Table 1 of Exhibit A. SCE shall operate the Last Structure. WAPA shall operate the WAPA Interconnection Facilities from Mead Substation to the Point of Change of Ownership.

8.3. The Parties also agree that, in the case of construction of new facilities or the modification of existing facilities, the Parties shall collaborate and mutually agree to arrangements which result in a reliable and safe operational configuration.

8.4. The Eldorado Co-Owners recognize the authority of WAPA as a Balancing Authority and Transmission Operator of Mead Substation and WAPA's Interconnection Facilities. WAPA recognizes the authority of the CAISO as an adjacent Balancing Authority. The facilities shall be operated in accordance with the adjacent Balancing Authority Area arrangements that are in place between WAPA and the CAISO.

8.5. SCE and WAPA agree to comply with Good Utility Practice and all applicable reliability requirements, standards, rules, and regulations of FERC, North American Electric Reliability Corporation (NERC), and Western Electricity

Coordinating Council (WECC) or any successor entity(ies) assuming or charged with similar reliability responsibilities as they presently exist and as may be established. To the extent allowed by law, either Party, if subject to resulting violations and/or payment of sanctions, shall be responsible for violations of the foregoing and for the payment of any sanctions resulting from a final order (after any NERC, FERC, WECC, or any successor entity(ies) appeals, reconsideration, rehearing requests, and any jurisdictional judicial review have been exhausted) for the violation of any applicable FERC, NERC, WECC, or any successor entity(ies) standards or rules in the performance of such Party's duties hereunder. A Party, to the extent allowed by law, shall be responsible to pay only its lawful share of the imposed sanction based on its relative contribution to the improper act or omission related to the performance of its duties hereunder. Neither Party shall be responsible for sanctions it is not legally obligated to pay, or for any acts, omissions, or violations of the other Party. Notwithstanding any provision herein, by entering into this Contract, the Parties have not, and will not be deemed to have: 1) waived or conceded any defense it may have; 2) accepted any liability, responsibility, or obligation to pay any penalty or fine to which it would not have been subject in the absence of this Contract; or 3) accepted or assumed any obligation to act, or refrain from acting, in a manner that would violate, or exceed the authority conferred on it by any applicable statute, regulation, or lawfully promulgated court or regulatory order.

9. **OPERATION DURING AN EMERGENCY**:

9.1. If during the operation, maintenance, or replacement of transmission facilities an Emergency occurs which requires the operation of the other Party's facilities, and a representative of such Party cannot be made readily available for such operation, or is unable to perform such operation, the Party performing the operation, maintenance, or replacement may, upon notification to such other Party, operate the other Party's facilities as instructed, through verbal or written instructions.

9.2. In the case of any Emergency, WAPA reserves the right to perform Emergency Maintenance on its own facilities as well as the Eldorado Co-Owners' facilities at the Mead Substation (as identified in Table 1 of Exhibit A), to ensure continued reliable operation of WAPA's Transmission System. WAPA will provide notice to the Eldorado Co-Owners in accordance with subsection 5.2 herein.

9.3. Payment for operation of facilities shall be made in accordance with Section 14 (Compensation).

10. **ROUTINE AND MAJOR MAINTENANCE OF FACILITIES**:

10.1. Routine Maintenance shall be included in the Annual Work Plan. Upon completion of its Annual Work Plan, WAPA will provide such plan to the Eldorado Co-Owners for review no later than August 1 of the prior year. Routine Maintenance will be performed in accordance with Good Utility Practice, this Section and Exhibit A. Charges for Routine Maintenance shall be cost based. SCE shall pay for the cost of Routine Maintenance in accordance with Section 14 (Compensation). No Party shall be responsible under this Contract for any costs

incurred by another Party for Routine Maintenance of its own facilities, unless specified in the Annual Work Plan or otherwise approved by the other Party.

10.2. Major Maintenance will be performed in accordance with Good Utility Practice, this Section and Exhibit A. Charges for Major Maintenance shall be cost based. SCE shall pay for the cost of Major Maintenance in accordance with Section 14 (Compensation). The Eldorado Co-Owners will be provided with an opportunity to review costs related to Major Maintenance before they are incurred. WAPA acknowledges that Major Maintenance shall not be made without advance written notification to and acceptance by the Eldorado Co-Owners.

11. **INTERCONNECTION AND COMMON FACILITIES USE CHARGE**: The Eldorado Co-Owners shall have the right to be interconnected at Mead Substation by the Eldorado-Mead Lines, and to transmit power and energy across the 230-kV facilities at Mead Substation for the purpose of obtaining or interchanging energy that the Eldorado Co-Owners may require. SCE shall pay a monthly charge to WAPA for such interconnection, known as the Common Facilities Use Charge, and share in the costs of Common Facilities, as provided in Exhibit B, attached hereto. The monthly charge will be calculated by WAPA as soon as possible, at the end of the Fiscal Year using the latest cost data available. Charges for Mead Substation Common Facilities shall be cost based, and the details for such charges shall be reviewed at appropriate intervals as determined by WAPA, or at any other time, upon written request by the Eldorado Co-Owners. Any methodology or charge revised by WAPA shall be provided to the Eldorado Co-Owners in a revised Attachment No. 1 to Exhibit B and in accordance with Good Utility Practice.

The Attachment No. 1 to Exhibit B will be provided to the Eldorado Co-Owners at the earliest practicable date.

12. **METERING**: Metering and control facilities, as required for WAPA's Interconnection Facilities, will be owned, operated, maintained, and replaced pursuant to WAPA's Metering Policy, attached as Attachment No. 1 to Exhibit C. Such metering and control facilities shall be maintained or modified by WAPA as necessary.

13. **REMOVAL OF FACILITIES**: Within one hundred eighty (180) days prior to termination of this Contract, SCE, at the sole expense of the Eldorado Co-Owners, shall remove the relevant equipment owned by the Eldorado Co-Owners from WAPA's facilities and shall restore the facility where the equipment was installed to its original condition or to a condition satisfactory to WAPA. If the equipment is not removed and the property restored to a satisfactory condition prior to the termination date, WAPA may, at no cost or expense to WAPA and subject to applicable laws, assume ownership of the equipment as-is and, at its discretion, (i) use the equipment at no cost, (ii) dispose of it in a manner consistent with sound business principles, or (iii) choose to restore the facilities to its original or satisfactory condition. In the event WAPA sells salvaged equipment, any funds remaining after deducting WAPA's costs of removal, disposal, and appropriate allocable expenses, will be returned to SCE without interest whatsoever. Should sale of the salvaged facilities fail to meet WAPA's cost of removal and disposal, SCE shall pay WAPA the difference upon demand, without interest whatsoever. If WAPA chooses to restore the facilities, SCE shall pay WAPA for the cost of restoration upon demand. The Eldorado Co-Owners agree that WAPA shall have no liability and hold WAPA harmless from any loss and from any liability arising from SCE's failure to

remove the equipment provided that WAPA does not unreasonably impede SCE's ability to remove said equipment pursuant to access rights granted in Section 5. However, in the event WAPA elects to use the unremoved equipment per Section 13 (i) of this Agreement, the Eldorado Co-Owners shall be relieved of any and all liability arising out of the use of said unremoved equipment.

14. **COMPENSATION**: Payments shall be made in accordance with Attachment No. 4, attached hereto.

14.1. Payment for Routine Maintenance: Upon execution of this Contract, SCE shall pay WAPA based on the terms of Provision 6 of Attachment 5 General Interconnection Contract Provisions (GICP), for the estimated Fiscal Year cost for Routine Maintenance, in amounts specified in Exhibit A. If, at the end of the Fiscal Year, the estimated Routine Maintenance charge was less than the amount advanced by SCE, the remaining funds shall be applied to the following year's annual Routine Maintenance charge; provided, that twenty-five (25) percent of the estimated annual charge will be withheld to account for Routine Maintenance to be performed between the time the invoice is sent and the end of the Fiscal Year. Should the annual costs incurred for Routine Maintenance pursuant to Good Utility Practice exceed the funds provided by SCE, WAPA shall bill SCE for those additional costs. The Eldorado Co-Owners reserve the right to audit such costs in accordance with Section 17 of this Contract.

14.2. Payment for Major Maintenance: For Major Maintenance, WAPA will invoice SCE the estimated costs ninety (90) days prior to any purchases or work to be performed by WAPA. SCE shall pay WAPA for all costs incurred for Major

Maintenance in accordance with Good Utility Practice, pursuant to the terms of Provision 6 of Attachment 5 of the GICP. The Eldorado Co-Owners reserve the right to audit such costs in accordance with Section 17 of this Contract.

14.3. Funding Requirement for Non-Emergency Maintenance: WAPA shall not be obligated to perform any work pursuant to this Contract for Routine Maintenance and Major Maintenance without advance payment by SCE that is sufficient to perform the work. In the event the funds advanced by SCE are insufficient, SCE shall, within twenty (20) days after receipt of written notice from WAPA, advance such additional funds as requested.

14.4. Payment for Emergency Maintenance: As soon as practicable, WAPA shall invoice SCE for Emergency Maintenance performed in accordance with this Contract and SCE shall pay such invoice.

15. **CONSEQUENTIAL DAMAGES**: Neither Party shall be liable under this Contract, to the other Party for any special, consequential, or indirect damages of any kind, including but not limited to, any loss of revenue or loss of profits, and costs associated with compliance with non-monetary sanctions imposed by FERC, NERC, WECC, or their successors or assigns.

16. **CONTROL AND POSSESSION OF SYSTEMS**: Except as noted in the exhibits herein, each Party shall remain in exclusive control and possession of its system, and this Contract shall not be construed to grant either Party any rights or ownership, control, or possession of the other Party's system.

17. **RECORDS AND AUDITS**: Either Party, at its sole expense, may reasonably audit or otherwise examine the books, records, invoices, and other evidence of expenditures

relating to work under the Contract for a period of three (3) years following the date on which such final completion reports were issued. The ability of WAPA to provide such documentation for examination is subject to federal laws and regulations. Audit rights among SCE and the Eldorado Co-Owners shall be governed by the Co-Tenancy and Operating Agreement

18. **SPECIAL PROVISIONS**: As part of the negotiation process for the construction, operation, maintenance, and replacement of facilities, the Parties may agree upon additional special provisions associated with such facilities. Such special provisions may include future upgrades, enlargements, betterments, or additional facility construction, exchange of equipment, use of right(s)-of-way or facilities of any Party, and similar special terms and conditions. All special provisions shall be included in an appropriate exhibit which details the responsibility of the Parties for ownership, operation, maintenance, and replacement of facilities associated with the special provisions. Notwithstanding the foregoing, nothing in this Section shall require the Parties to enter into any additional negotiations or agreements.

19. **SECURITY REGULATIONS**: The Security Regulations set out in Attachment Nos. 2 and 3, attached hereto, are hereby made a part of this Contract, the same as if they had been expressly set forth herein, and may be revised in accordance with Section 21.

20. **AMENDMENTS AND MODIFICATIONS**: This Contract may be amended or modified only by an amendment or modification duly executed by the Parties.

21. **ATTACHMENTS**: Inasmuch as certain terms of this Contract may change during the term of this Contract, they will be set forth in attachments as formulated and modified from time to time. The initial attachments are attached hereto, and each is incorporated

into this Contract in accordance with its respective terms until superseded by a subsequent attachment. Changes, additions, or modifications to the attachments shall be reflected in new or revised attachments and will be distributed in accordance with Provision 19 of the General Interconnection Contract Provisions. To the extent the Eldorado Co-Owners disagree with any changes or modifications to the attachments, the Eldorado Co-Owners may terminate this Contract in accordance with Section 4 of this Contract.

22. **EXHIBITS**: The initial exhibits are attached hereto, and each is incorporated into this Contract in accordance with its respective terms until superseded by a subsequent exhibit. Changes, additions, or modifications to the facilities shall be reflected in new or revised exhibits. In the event of an inconsistency between an exhibit and this Contract, the Contract shall govern.

23. **GENERAL INTERCONNECTION CONTRACT PROVISIONS**: The GICP, dated September 26, 2013, and attached hereto, are hereby made a part of this Contract the same as if they had been expressly set forth herein; provided, that if the provisions in the GICP are in conflict with this Contract, the terms of this Contract shall control. Provisions 6.2, 14.1 and 25 are excluded.

24. **EXECUTION BY COUNTERPARTS**: This Contract may be executed in any number of counterparts and, upon execution and delivery by each Party, the executed and delivered counterparts together shall have the same force and effect as an original instrument as if all Parties had signed the same instrument. Any signature page of this Contract may be detached by any counterpart of this Contract without impairing the legal

effect of any signatures thereon, and may be attached to another counterpart of this Contract identical in form hereto, by having attached to it one or more signature pages.

25. **TRANSFER AND ASSIGNMENT**: No Party shall have the right to transfer or assign all or part of its rights and obligations in this Contract without the express prior written consent of the other Party, which consent shall not be unreasonably withheld. No Party shall be relieved of any of its obligations under this Contract by a transfer or assignment under this Section without the express prior written consent of the other Party, which consent shall not be unreasonably withheld. Any successor to the rights, titles, interests and obligations of a Party under this Contract shall assume and agree to fully perform and discharge all of the obligations hereunder of such Party, and such successor shall notify the other Party in writing of such transfer or assignment and shall furnish evidence of such transfer or assignment. For the avoidance of doubt, "Party" as used in with respect to the Eldorado Co-Owners, refers to the Eldorado Co-Owners acting together, and does not restrict or impact the ability of any one Eldorado Co-Owner or SCE to assign its rights and obligations in this Contract or any other agreement. Any purported assignment or delegation not in accordance with this Section will be void.

26. **RESERVATION OF RIGHTS**: Each Party shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that any other Party shall have the right to protest any such filing and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC

under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

27. **DISPUTES BETWEEN SCE AND ELDORADO CO-OWNERS**: Notwithstanding anything in this Contract or the Exhibits attached hereto, the Co-Tenancy and Operating Agreement shall govern all disputes arising between and among the Operating Agent and/or the Eldorado Co-Owners.

28. **AUTHORITY TO EXECUTE**: Each individual signing this Contract certifies that the Party represented has duly authorized such individual to execute this Contract that binds and obligates the Party.

The Parties have caused this Contract No. 16-DSR-12708 to be executed on the date first written above.

DEPARTMENT OF ENERGY
WESTERN AREA POWER ADMINISTRATION

By _____
Ronald E. Moulton
Title Senior Vice President and Desert Southwest Regional Manager

Address Desert Southwest Region
P.O. Box 6457
Phoenix, AZ 85005-6457

SOUTHERN CALIFORNIA EDISON COMPANY

By _____
Jill Horswell
Title Director of Grid Contracts

Address Southern California Edison Company
2244 Walnut Grove Avenue
Rosemead, CA 91770

ATTEST

_____
TITLE

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WESTERN AREA POWER ADMINISTRATION

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Title Senior Vice President and Desert Southwest Regional Manager

Address Desert Southwest Region
P.O. Box 6457
Phoenix, AZ 85005-6457

SOUTHERN CALIFORNIA EDISON COMPANY

By Robert Woods
Managing Director T&D Asset
Title Management and Operations Services

Address Southern California Edison Company
2244 Walnut Grove Avenue
Rosemead, CA 91770

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Title Senior Vice President and Desert Southwest Regional Manager

Address Desert Southwest Region

P.O. Box 6457

Phoenix, AZ 85005-6457

NV ENERGY

By _____

Walter Spansel

Title Vice President, Transmission

ATTEST

Address NV Energy

By _____

P.O. Box 98910 M/S B57SC

Title _____

Las Vegas, NV 89151

DEPARTMENT OF WATER AND POWER OF THE CITY OF LOS ANGELES BY BOARD OF WATER AND POWER COMMISSIONERS

By _____

David H. Wright

Title General Manager

ATTEST

Address Department of Water and Power

By _____

of the City of Los Angeles

Title _____

111 North Hope Street

Los Angeles, CA 90012

And: _____

Barbara E. Moschos

Title Board Secretary

APPROVED AS TO FORM AND LEGALITY
MICHAEL N. FEUER, CITY ATTORNEY

AUG 04 2017

BY _____
VAUGHN MINASSIAN
DEPUTY CITY ATTORNEY

NV ENERGY

By _____

Walter Spansel

Title Vice President, Transmission

ATTEST

Address NV Energy

By _____

P.O. Box 98910 M/S B57SC

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Las Vegas, NV 89151

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Address Department of Water and Power

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111 North Hope Street

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By _____

Walter Spansel

Title Vice President, Transmission

ATTEST

Address NV Energy

By _____

P.O. Box 98910 M/S B57SC

Title _____

Las Vegas, NV 89151

DEPARTMENT OF WATER AND POWER OF THE CITY OF LOS ANGELES BY BOARD OF WATER AND POWER COMMISSIONERS

By _____

David H. Wright

Title General Manager

ATTEST

Address Department of Water and Power

By _____

of the City of Los Angeles

Title _____

111 North Hope Street

Los Angeles, CA 90012

And: _____

Barbara E. Moschos

Title Board Secretary

APPROVED AS TO FORM AND LEGALITY
MICHAEL N. FEUER, CITY ATTORNEY

AUG 04 2017

BY _____
VAUGHN MINASSIAN
DEPUTY CITY ATTORNEY

NV ENERGY

By _____

Walter Spansel

Title Vice President, Transmission

Address NV Energy

P.O. Box 98910 M/S B57SC

Las Vegas, NV 89151

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_____

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111 North Hope Street

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_____

And: Barbara E. Moschos

Title Board Secretary

_____

TITLE

Exhibit A
Contract No. 16-DSR-12708
Eldorado Co-Owners

OWNERSHIP, OPERATION, MAINTENANCE, REPLACEMENT, AND FINANCIAL RESPONSIBILITIES OF CERTAIN FACILITIES AT MEAD SUBSTATION

1. This Exhibit A, effective under and as a part of Contract No. 16-DSR-12708 (Contract), shall remain in effect until superseded by another Exhibit A; provided, this Exhibit A, or any superseding Exhibit A, shall terminate upon expiration of the Contract.

2. An operating diagram of Mead Substation is shown on page 5.

3. The table below specifies the OM&R, ownership, and direct OM&R cost responsibilities for the facilities specified pursuant to this Contract.

Table 1

Equipment	Operation	Maintenance & Replacement	Ownership	OM&R Cost Responsibility
Span and associated hardware between dead end rack and Last Structure	WAPA	WAPA	WAPA	SCE
Lattice Steel Towers M0-T1 with associated conductor and hardware (Last Structure)	SCE	SCE	Eldorado Co-Owners	SCE
230-kV Eldorado-Mead No. 1 and Eldorado-Mead No. 2 Transmission Lines (outside of Mead Substation)	SCE	SCE	Eldorado Co-Owners	SCE
230-kV Power Circuit Breaker Nos. 7282, 7482 and appurtenant equipment, protective relays and controls	WAPA	WAPA	WAPA	SCE

Equipment	Operation	Maintenance & Replacement	Ownership	OM&R Cost Responsibility
230-kV Power Circuit Breaker Nos. 7186, 7586 and appurtenant equipment, protective relays and controls	WAPA	WAPA	WAPA	50% SCE 50% WAPA
230-kV Power Circuit Breaker Nos. 7082, 7682 and appurtenant equipment, protective relays and controls	WAPA	WAPA	WAPA	WAPA
230-kV Motor Operated Disconnect Switch Nos. 7281, 7283, 7187, 7481, 7483, and 7585	WAPA	WAPA	WAPA	SCE
230-kV Motor Operated Disconnect Switch Nos. 7081, 7083, 7185, 7587, 7681, and 7683	WAPA	WAPA	WAPA	WAPA
230-kV Grounding Switch Nos. 7280, 7480, and appurtenant equipment	WAPA	WAPA	WAPA	SCE
230-kV Grounding Switch Nos. 7080, 7680, and appurtenant equipment	WAPA	WAPA	WAPA	WAPA
230-kV Coupling Capacitor Voltage Transformer (CCVT) Nos. VW72A and VW74A	WAPA	WAPA	WAPA	SCE
230-kV Current Transformer (CT) Nos. QW72A and QW74A	WAPA	WAPA	WAPA	SCE
Revenue Meter Nos. MED750 and MED752 and appurtenant equipment installed at 230-kV	WAPA	WAPA	WAPA	SCE

Equipment	Operation	Maintenance & Replacement	Ownership	OM&R Cost Responsibility
230-kV RTU THC7 and interface racks THC8, THD7, and THD8	SCE	SCE	Eldorado Co-Owners	SCE
Associated structures, foundations, cable, protective equipment, and capacitors	WAPA	WAPA	WAPA	SCE

4. The estimated annual OM&R payment is as follows:

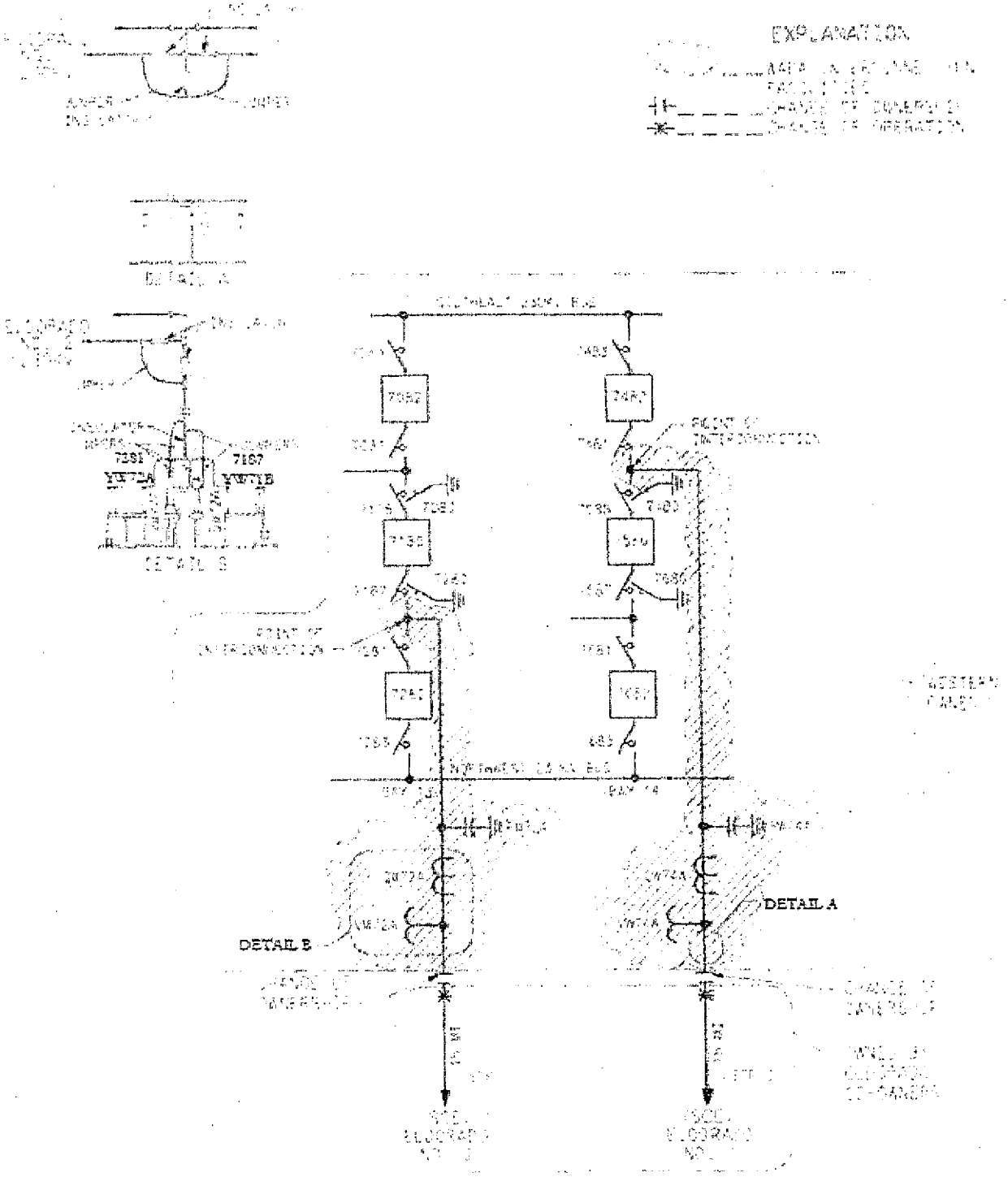
Description	Fiscal Year 2018	Fiscal Year 2019	Fiscal Year 2020
Operations	$ 4,292	$ 2,372	$ 1,736
Maintenance	$21,460	$11,860	$ 8,680
Budget and Power Marketing Support	$ 387	$ 387	$ 387
Total Estimated Annual Charge	$26,139	$14,619	$10,803

4.1 For periods of less than one (1) year, the prorated total shall be on the basis of one-twelfth of the total annual payment per month.

5. This Exhibit A shall be modified in accordance with Section 22 of the Contract and shall be reviewed at least every three (3) years and revised as necessary or as otherwise agreed upon by the Parties.

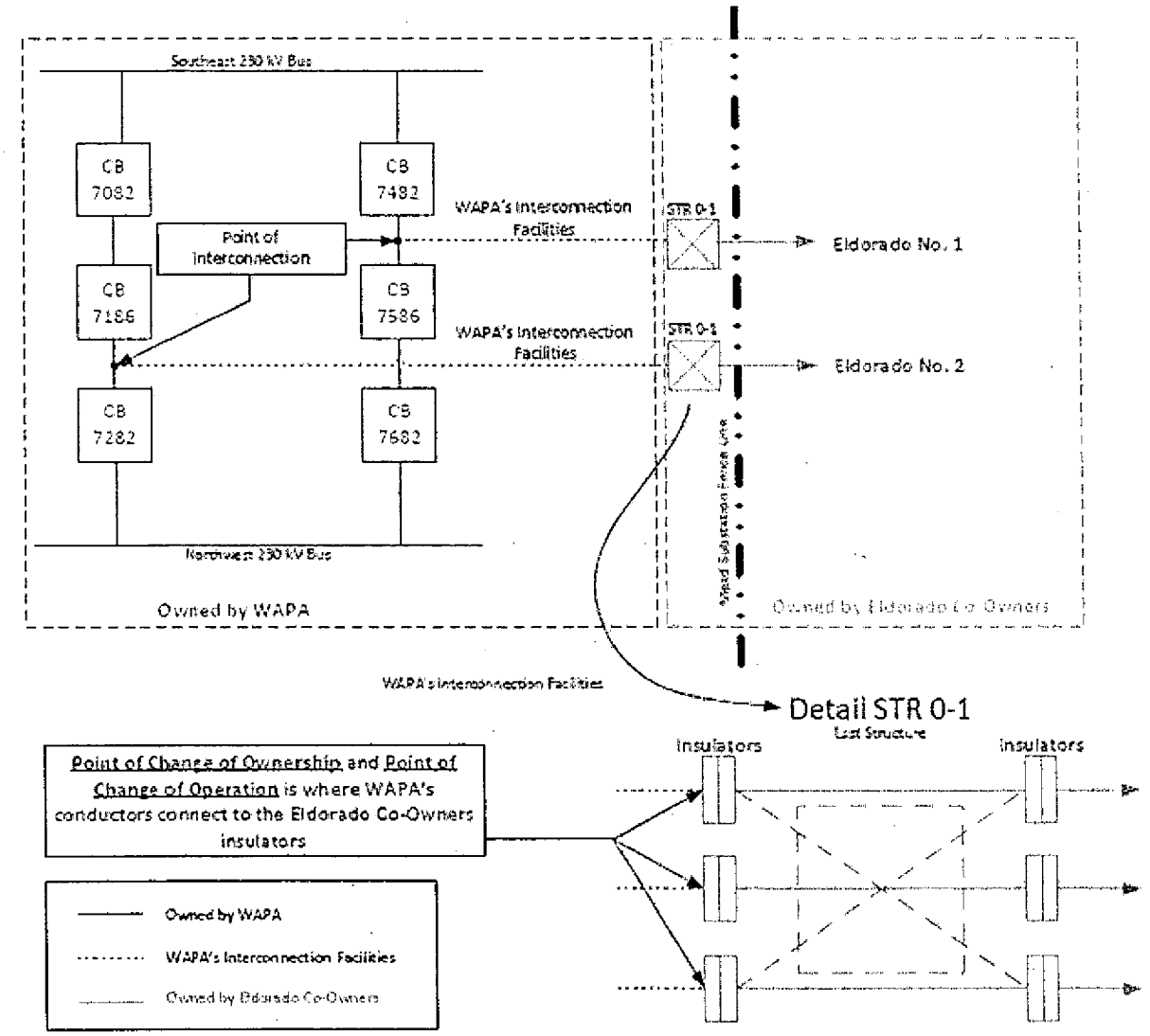
Points of Interconnection, Change of Ownership, and Change of Operation at Mead Substation

Figure 1



Points of Interconnection, Change of Ownership, and Change of Operation at Mead Substation

Figure 2



MEAD SUBSTATION FACILITIES USE CHARGE

1. This Exhibit B, effective under and as a part of Contract No. 16-DSR-12708 (Contract), shall become effective on June 1, 2017, and shall remain in effect until superseded by another Exhibit B; provided this Exhibit B, or any superseding Exhibit B, shall terminate upon expiration of the Contract.

2. **CHARGE FOR USE OF MEAD SUBSTATION COMMON FACILITIES**: The charge for use of the Mead Substation Common Facilities shall be specified in Attachment No. 1 to Exhibit B, attached hereto, and any superseding attachments to this Exhibit B. SCE's charge for use of the Mead Substation Common Facilities shall be determined by multiplying the annual costs attributable to each designated function at Mead Substation by the number of designated functions utilized by the Eldorado Co-Owners at Mead Substation. The monthly charge for use of the Mead Substation Common Facilities may be revised annually by WAPA in a revised attachment issued to the Eldorado Co-Owners. SCE is responsible for the charges indicated in Attachment No. 1 to Exhibit B and in the revised attachments.

3. This Exhibit B may be modified in accordance with Section 22 of the Contract.

Attachment No. 1 to
Exhibit B
Contract No. 16-DSR-12708
Eldorado Co-Owners

MEAD SUBSTATION FACILITIES USE CHARGE

1. This Attachment No. 1 to Exhibit B to Contract No. 16-DSR-12708 (Contract) shall become effective on June 1, 2017.

2. **COMPUTATION OF THE FACILITIES USE CHARGE**: The estimated annual costs and the number of designated functions in this Section are subject to annual revision by WAPA.

The charge is computed as follows:

Estimated Annual Costs for Mead Substation Common Facilities:

Amortization and Interest	$1,750,658.56
Replacements	$3,065,721.33
Operation and Maintenance	$1,723,952.41
Total	$6,540,332.30

Annual Cost per Function for Mead Substation Common Facilities:

Number of Designated Functions at Mead Substation[1] 33 1/3

Annual Cost per Function $\frac{\$6,540,332.30}{33\ 1/3}$ = $196,210.17

Annual Costs for Mead Substation Common Facilities Allocated to SCE:

Number of Designated Functions used by the Eldorado Co-Owners 2

Annual Cost Allocated to SCE 2 x $196,210.17 = $392,420.34

Monthly Costs for Mead Substation Common Facilities Allocated to SCE:

$392,420.34 ÷ 12 = $32,701.70[2]
11 Months at ($32,701.70 x 11 months = $359,718.70)
12th Month at $392,420.34 - $359,718.70 = $32,701.64
($32,701.64 x 1 month = $32,701.64)

[1] The number of designated functions is based on interconnected transmission lines at the 230-kV Switchyard in accordance with this Attachment No. 1 to Exhibit B.

[2] Cost is calculated by rounding to the nearest hundredth.

3. **MODIFICATION OF CHARGES**: The charge and the manner in which the charge is determined as set forth in this Attachment No. 1 to Exhibit B may be modified from time to time in accordance with Section 11 of the Contract.

Attachment No. 1 to
Exhibit B
Contract No. 16-DSR-12708
Eldorado Co-Owners

NUMBER OF DESIGNATED FUNCTIONS
AT MEAD SUBSTATION'S 230-KV SWITCHYARD
As of June 1, 2017

Equipment Nos.		Function	Number of Functions
9082 & 9186	LADWP	McCullough-Mead No. 1	1
9282 & 9186	WAPA	Hoover-Mead No. 6	1
8682 & 8786	LADWP	McCullough-Mead No. 2	1
8882 & 8786	WAPA	Hoover-Mead No. 7	1
8282 & 8386	WAPA	Hoover-Mead No. 8	1
8482 & 8386	LADWP	Mead-Victorville 287-kV	1
8182		Bus Tie	0
7882 & 7986	NPC 60% & CBC 40%	Mead 69-kV, Transformer KW17B	1 1/3
7482 & 7586	EDC	Eldorado-Mead No. 1	1
7682 & 7586	WAPA (Leased)	Hoover-Mead No. 2	1
7082 & 7186	WAPA (Leased)	Hoover-Mead No. 3	1
7282 & 7186	EDC	Eldorado-Mead No. 2	1
6682 & 6786	VEA	Mead-Pahrump	1 1/3
6282 & 6386	WAPA	Hoover-Mead No. 4	1
6482 & 6386	MWD	East Camino-Mead	1
5882 & 5986	MWD	West Camino-Mead	1
6082 & 5986	WAPA	Hoover-Mead No. 5	1
5682 & 5586	NPC	Arden-Mead No. 1	1 1/3
5082 & 5186	WAPA	Mead 69-kV, Transformer KW17A	1
5282 & 5186	NPC	Greenway-Mead	1
4282 & 4386	NPC	Arden-Mead	1
4482 & 4386	WAPA	Henderson-Mead No. 2	1
4182		Bus Tie	0
3482 & 3586	CRC/SNWA	Eastside-Mead	1 1/3
3082 & 3186	NPC	Equestrian-Mead No. 2	1
3282 & 3186	CRC/SNWA	Mead-Newport	1
2682 & 2786	MPP	Mead 500-kV, Transformer KT1A	1 1/3
2482 & 2586	WAPA	Mead 345-kV, Transformer KU2B	1 1/3
2282 & 2386	NPC-MPP	Mead 500-kV, Transformer KT2A	1 1/3
1882 & 1986	WAPA	Peacock-Mead 345-kV, Transformer KU2A	1
2082 & 1986	WAPA	Henderson-Mead No. 1	1
1482 & 1586	WAPA	Hoover-Mead No. 1	1
1682 & 1586	WAPA	Davis-Mead	1
		TOTAL NUMBER OF FUNCTIONS	**33 1/3**

Legend:

CBC	City of Boulder City, Nevada
CRC	State of Nevada's Colorado River Commission of Nevada
LADWP	Department of Water and Power for the City of Los Angeles
MPP	Mead-Phoenix Project
MWD	Metropolitan Water District of Southern California
NPC	Nevada Power Company
EDC	Eldorado Co-Owners[3]
SNWA	Southern Nevada Water Association
VEA	Valley Electric Association
WAPA	Western Area Power Administration, Desert Southwest Region

[3] The Eldorado Co-Owners include Southern California Edison Company, Nevada Power Company d/b/a NV Energy, and the Department of Water and Power for the City of Los Angeles.

Exhibit C
Contract No. 16-DSR-12708
Eldorado Co-Owners

WESTERN AREA POWER ADMINISTRATION'S METERING POLICY

1. This Exhibit C, effective under and as a part of Contract No. 16-DSR-12708 (Contract) shall become effective on June 1, 2017, and shall remain in effect until superseded by another Exhibit C; provided this Exhibit C, or any superseding Exhibit C, shall terminate upon expiration of the Contract.

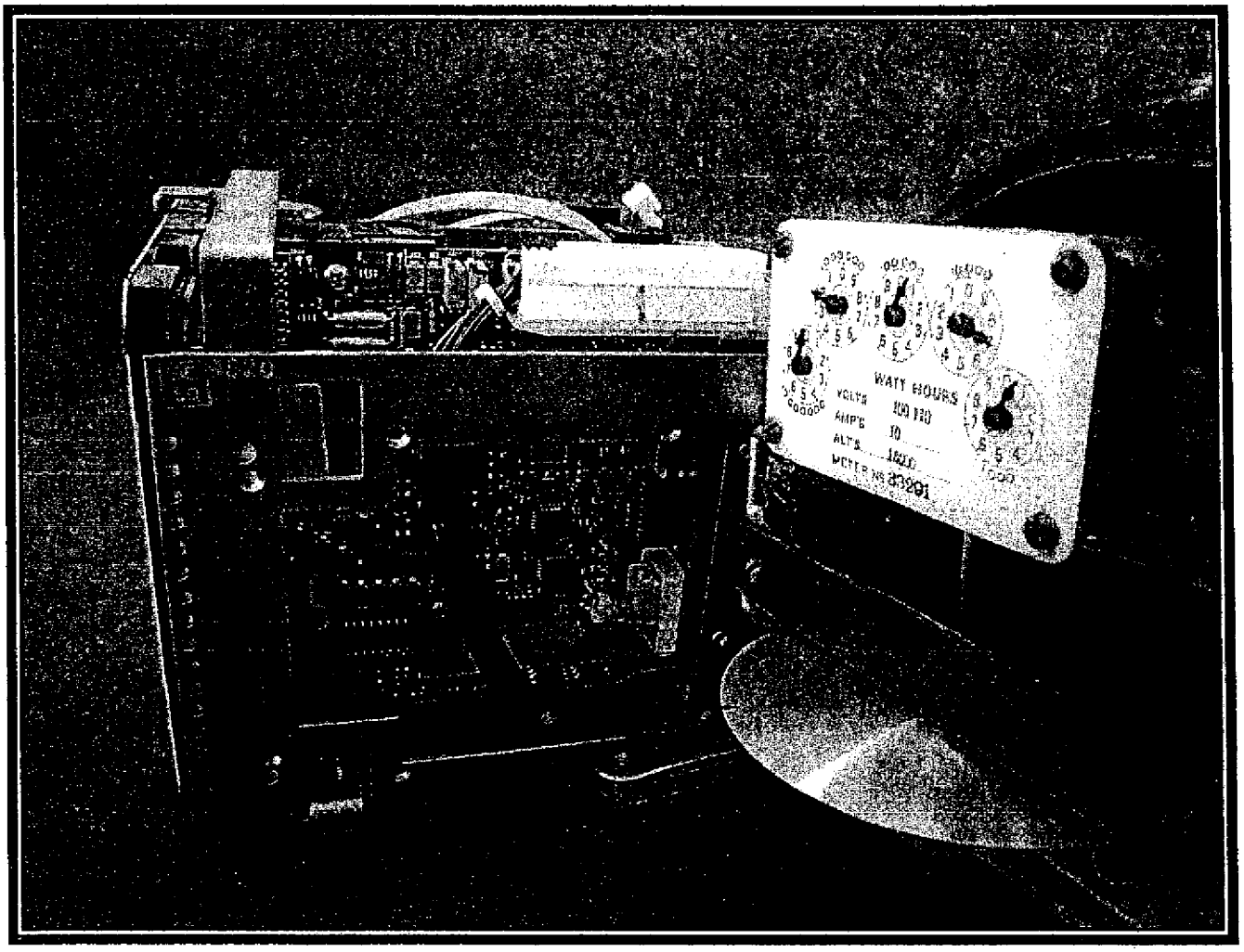
2. The Attachment No. 1 to this Exhibit C, provides the current Western Area Power Administration's Metering Policy.

3. This Exhibit C, to Contract No. 16-DSR-12708 may be modified in accordance with Section 22 of the Contract.

Western
AREA POWER
ADMINISTRATION

Attachment No. 1
Exhibit C
Contract No. 16-DSR-12708
Eldorado Co-Owners

WESTERN AREA POWER ADMINISTRATION
Meter Policy



November 22, 2013

Table of Contents

1. Purpose

1.1. The Western Meter Policy (Policy) establishes standards for the Western Area Power Administration and its Desert Southwest (DSW), Rocky Mountain (RMR), Sierra Nevada (SNR) and Upper Great Plains (UGP) regions ("Western", collectively), for Revenue Meters (Intratie, Generation, and Load), Boundary Meters and Meter System equipment, installation requirements and responsibilities. This policy applies to all metering Points of Delivery (POD), Points of Interconnection (POI) or Boundary Meter Points (BMP) to Western's power system for these regions.

1.2. Western's regions are registered in various capacities with the North American Electric Reliability Corporation (NERC), within the Western Electricity Coordinating Council (WECC) and the Midwest Reliability Organization (MRO). Western adheres to, and complies with, all the relevant NERC, WECC and MRO standards for maintaining accurate data for Automatic Generation Control (AGC) and Area Control Error (ACE) systems. Western operates Balancing Authorities (BAs) and a Sub Balancing Authority (SBA).

2. Scope

2.1. This Policy supersedes any previous Meter Policy in effect for Western's regions. The expectation is the requirements contained in this Policy Statement will be incorporated, to the extent possible, into specific contractual agreements (i.e., contracts, letter agreements, memorandum of understanding, etc.).

2.2. Western acquires, retrieves and integrates meter data into its billing, meter interrogation, scheduling and power accounting systems. This Policy assures that accurate and consistent data is used by Western's billing, scheduling, power accounting programs and operational systems. Western also shares the data with interested parties and Customers, consistent with any critical infrastructure and cyber security limitations, non-disclosure requirements, network and access policies, communication standards, etc.

2.3. This Policy applies to installations of new Meter Systems, in Western-owned Facilities or Western-owned and maintained Meter Systems installed in Customer's Facilities. Western-owned Meter Systems will utilize the provisions of the Policy, to the maximum extent possible, when installing new or replacing existing Meter Systems. Exceptions for existing installations are detailed in Section 7.

2.4. This Policy applies to new Customer-owned Meter Systems installed in Customer-owned Facilities establishing a new POD, POI, BMP, and/or new meter data that will be provided by the Customer and used by Western for Energy Services, as well as any meter maintenance services that are provided by Western. Western's expectation is that it and its Customers will utilize, to the maximum extent possible, the provisions of this Policy when installing new or replacing existing Meter Systems. Exceptions for existing installations are detailed in Section 7.

3. General Meter Policy Requirements

3.1. Meter System equipment shall be connected and installed at the POD, POI or BMP in Western's facilities, transmission lines, Customer-shared transmission lines, or other shared facilities as defined in the contractual agreement. Meters shall be installed at the POD, POI or BMP high voltage delivery point unless an exception is granted under Section 3.2

3.2. Western may grant limited exceptions for new low voltage, transformer loss compensated (TLC) metering. Western requires this exception be evaluated, approved and documented in the contractual agreement. Exception criteria that may be considered for a new Meter System are: a) installation in a existing Facility having existing TLC metering; b) high voltage connections are technically or physically not feasible; c) connected load is <250 KW; d) prior agreements with a customer for build-out of their current system load capacity.

3.3. Only one Revenue or Boundary Meter shall be designated as the primary billing, power accounting and scheduling meter at each POD, POI or BMP. Western or Customers may install additional meters as back-up. Data from back-up meters should not be used for primary meter data functions, unless all interested parties agree and utilize the same meter data.

3.4. A primary Revenue or Boundary Meter shall be a single metering device providing all meter functions and outputs, including, but not limited to, real-time power (Mega/Kilo-Watts), real-time reactive power (Mega/Kilo-Vars), digital Kilo-Watt-hour (Kwh), digital kilo-Var-hour (KVARh) pulses and data interval storage. See Section 9 for Western's meter specifications.

3.5. MV-90 data access is required for every meter installation. The remote meter interrogation access may be provided by a public landline or cellular telephone, utility internal phone circuit or direct port connection. If remote access is prohibited by NERC Critical Infrastructure Protection (CIP) requirements, Western's or the operating utility's network system requirements, Western or the operating utility shall make reasonable efforts to provide MV-90 formatted data files within (5) business days of the 1st day of each month to each connected utility.

3.6. Metering system installations shall adhere to current applicable utility standards that include, but are not limited to, American National Standards Institute (ANSI), National Electric Safety Code (NESC), National Fire Protection Association (NFPA), National Electric Code (NEC), Occupation Safety and Health Administration (OSHA), WECC, MRO and NERC.

3.7. Western requires a contractual agreement for every new meter installation. The installation and funding of the metering system equipment may be covered under the scope of another contractual agreement, such as a construction contract. Existing meters that require Meter System upgrades, change of use, relocations of a POD, POI or BMP, may require modifications to existing contracts or agreements. Links to Western's regional Point of Contact are located in Exhibit I: Western Contact Information.

3.8. The costs of material and labor to install, modify, replace, change or remove Revenue or Boundary Meters within Western's system shall be at the Customer's expense, unless otherwise agreed in contractual agreements between Western and the Customer.

3.9. For all Customer-funded work, Western cannot obligate its funds or expend labor resources without a signed contractual agreement and advance funding. Further, Western must cease all work in progress if funding becomes deficient.

3.10. When the contract changes or terminates and Western no longer needs the POD, POI or BMP, the financial and replacement responsibility will be transferred to the Customer and Western will remove all Western-owned Meter System equipment. Western will either terminate or transfer to the Customer (or Customer's agent) any services Western provided, including maintenance, meter interrogation and meter data reports or studies.

4. Western-Owned Facilities

4.1. Meter System installations, located within a Western facility, shall be owned and maintained by Western. Customer-funded Meter System installations will designate or convey ownership to Western in the contractual agreement.

4.2. Western shall be responsible for the engineering design, equipment procurement, installation and commissioning of all Meter Systems in Western facilities.

4.3. Customers or their contractors that have been granted authority by contractual agreement to provide the engineering design services, procurement, installation or commissioning of Western Meter System equipment will adhere to this Policy and obtain the appropriate engineering reviews and approvals prior to installation. Western's engineering or maintenance will review Meter System test reports and grant final approval before equipment is placed in-service.

4.4. Western will make provisions to share the primary meter analog and/or digital data with authorized parties and Customers, consistent with any critical infrastructure and cyber security limitations, non-disclosure requirements, network and access policies, communication standards, etc. Methods to share data include direct meter connection, connection to a Local Data Concentrator (LDC), Remote Terminal Unit (RTU), Remote Data Concentrator (RDC), shared phone line, MV-90/MV-WEB data files or as a posted ICCP value or other means as determined by Western.

4.5. Customers may request installation of their Meter System equipment within a Western Facility for the Customer's own load monitoring or data retrieval. Western will review, and if appropriate, approve the design and make any connections into the Meter System circuits at the Customer's expense. Western requires a contractual agreement detailing the Customer's financial responsibility for the installation, maintenance, communication circuits, data retrieval and ownership of the Meter System equipment. Western may contractually agree to provide the installation and/or maintenance services for this Meter System equipment.

5. Customer-Owned Facilities

5.1. Western's General Power Contract Provision (GPCP) Section 6.1, dated September 1, 2007 states: "The total electric power and energy supplied or transmitted under the contract will be measured by metering equipment to be furnished and maintained by Western, a designated representative of Western, or where situations deem it appropriate as determined by Western, by the Contractor or its agent(s). In the event metering equipment is furnished and maintained by the Contractor or its agent(s) and the equipment is used for billing and other accounting purposes by Western, the Contractor shall ensure that the metering equipment complies with applicable metering policies established by Western."

5.2. In the situation described in GPCP 6.1 where the metering equipment is furnished and maintained by the Contractor, Western requires prior review and approval for any new Meter System installations or proposed modifications to existing Meter Systems under Section 7. Section 13 details the required submittals Western needs for its review and approval. Western reserves the right to be present at the Customer's Facility when new Meter Systems are installed or modifications are accomplished. In the event Western later requires modifications to the Contractor's metering equipment, the Customer will modify the metering equipment subject to Western's review and approval.

5.3. Customers that are internal members of Western's BA or SBA shall follow the provisions of this Policy, when installing or modifying a POD, POI or BMP; unless a specific exception is approved and documented in a contractual agreement with Western.

5.4. Western Customers, served within other BA's geographical designated areas that reside within Western BAs and SBAs or adjacent BA's footprint, will follow the BA's meter policy in effect for that designated area.

5.5. Customers will make provisions to share the primary meter analog and/or digital data with Western and other interested parties. This may be provided by a direct meter connection, connection to a LDC, RTU, RDC, shared phone line, data files or as a posted ICCP value.

5.6. Western reserves its right to witness routine testing, maintenance repairs or renovations of Meter System equipment in a Customer's facility where Western has a contractual interest in a Revenue or Boundary Meter. Advance notification is required prior to removing any in-service Meter System equipment as defined in Section 16.

5.7. In the event Western cannot witness Customer testing of meters, the Customer shall maintain a copy of the current test results plus an accumulation of three years of prior test results. These results will be available electronically upon Western's request.

6. New Boundary Meter Installations

6.1. When the meter is a BMP installed in a non-BA owned substation. Western, as a BA or SBA, requires a BA or SBA to own and to maintain the Boundary Meter supplying the common AGC data. Operations and maintenance of the BMP equipment can be assigned and performed by other parties through contractual agreements, but the BA that owns the meter retains the responsibility to provide accurate AGC data and is responsible for any NERC, MRO or WECC standard requirements, archived testing documentation and compliance reporting, if required. The ownership, operating utility and maintenance responsibilities shall be detailed in a contractual agreement signed by all of the participating parties.

7. Existing Meter Installations

7.1. This Policy does not supersede existing metering conditions and configurations. However, as opportunities permit, Western and its Customers will collaborate to modify existing metering configurations in compliance with this Policy.

7.2. Western will review the design, equipment specifications and data resources of existing Western-owned and Customer-owned Meter Systems. Western may adapt or modify the Meter System design and replace or upgrade equipment to achieve features, functions, accuracy or performance that Western deems necessary, by utilizing the Policy provisions and standards. Western will apply the provisions of the Policy with consideration of the particular Facility and/or Customer's requirements.

7.3. For existing POD, POI or BMP Customer-owned Meter Systems located in a Customer or Western-owned Facilities, Western's expectation is to utilize the provisions of this Policy, to the maximum extent possible, when upgrading, replacing or relocating Meter System equipment. Western may grant limited exceptions for particular Facilities and/or Customer requirements.

7.4. An existing meter located at a POD, POI or BMP, that is being relocated or split into multiple delivery points, shall be connected to the same voltage as the original connection point.

7.5. When an existing TLC low voltage Meter System, POD, POI and BMP connection point that is being upgraded, replaced, split or relocated, it must be evaluated and given due consideration for an uncompensated, high voltage connection. This evaluation and consideration is recommended for major Facility expansions, replacements or when future load growth is planned.

7.6. Existing meters that have allowed TLC low voltage POD, POI or BMP connections shall:

7.6.1. Continue within existing meters until the Meter System equipment is upgraded, replaced, or relocated and requires a contractual modification, at which time the meter TLC will be evaluated to either remain within the meter, or;

7.6.2. Programmatically calculate the losses within MV-90, other metering and power accounting systems, or as defined in a contractual agreement.

7.7. Line loss compensation shall be programmatically calculated either using MV-90, other metering and power accounting systems or as defined in a contractual agreement.

8. Meter System Requirements

8.1. Individual metering system equipment devices shall be installed to collectively achieve no greater than ± one percent (<1%) inaccuracy or error for the overall Meter System accuracy.

8.2. Meters and instrument transformers shall be installed to correctly measure real power (Watt), reactive power (Var) and energy usage (kWh) and shall not be bypassed without approval by Western. Instrument transformers shall meet the requirements of Sections 11 and 12.

8.3. Meter percent registration error (measured by out-of-service testing) for microprocessor meters shall be no greater than ± two-tenths of one percent (±0.2%) for full load kWh, light load kWh and kVARh in each power direction.

8.4. Meter in-service testing percent error shall be no greater than ± three-tenths of one percent (±0.3%) for the measured power flow.

8.5. Meter percent error for real-time Watts and Vars (if required) shall be no greater than ± two-tenths of one percent (±0.2 %) in each power direction. Zero (null) shall be tested for accuracy with no-load applied.

8.6. Meters located at grounded wye-connected facilities shall be 3-element, 4-wire meters. 3-element metering is required at POD or POI locations where Real-Time Data is collected for AGC or ACE needs.

8.7. Meters located at delta-connected or ungrounded wye-connected facilities may be 2-element, 3-wire meters for revenue (Load) type meters only. Delta connections are not permitted for Generation, Intratie or Boundary Meter installations.

8.8. 480 volt meters are unacceptable for Revenue Metering. When a Customer requests that Western assume maintenance or ownership responsibility for a 480 volt meter, the Customer shall be responsible for all costs to change to a 120 volt meter.

8.9. The Customer that is responsible for the metering and telecommunications will comply with the applicable contractual or regulatory requirements for equipment security access, cyber security, telecommunication transmission and data storage.

8.10. Typical block diagram configurations are provided for the various meter installations and configurations in Exhibits A through C. These drawings detail the standard requirements for data and communications that are required by Western for each Boundary and Revenue Meter. Any deviation from these requirements must receive prior approval from Western and must be documented in the appropriate contractual agreement.

9. Meter Requirements

9.1. Western uses a microprocessor meter for its standard meter as detailed in Exhibits D through G and below. Western shall approve use of other meter manufacturers, if they meet the following minimum requirements to measure, record, store, and transmit data, as determined by Western, based on the meter data requirements.

9.2. Meters shall be electronic microprocessor based: wye connected, grounded configuration: 3-phase, 3-element, 4-wire for any Boundary or Revenue Meter requiring Real-Time Data. Delta connected configuration: 3-phase, 2-element, 3-wire may be approved for Revenue (load) metering only.

9.3. Form 5 (delta connection) and form 9 (wye connection) Exhibit H user configuration option.

9.4. Class: Transformer rated class 2, 10 or 20 (user configuration option) bi-directional; four (4) quadrant instantaneous quantities.

9.5. ± Two-tenths percent (0.2%) accuracy class per the most recent ANSI C12.20.

9.6. Power supply: 125 VDC or 120 VAC

9.7. Control input voltage: 125 VDC.

9.8. Power quality measurement and data storage capability for a minimum of 45 days, user selectable configuration.

9.9. 120 VAC line to neutral metering voltage for wye metering; 120V phase to phase for delta metering; 60 HZ system frequency; auto-ranging voltage.

9.10. RS-232 serial or optical communication port, front mounted, ANSI type 2, for magnetic sensor attachment, per latest ANSI C12.18 standard, with adjustable communication rate from 300 to 9,600 bps (minimum), with 2 password levels (minimum).

9.11. Serial communication ports, rear mounted, EIA RS-232, with adjustable communication rate from 300 to 38,400 bps (minimum), with selectable communication protocols including DNP 3, and 2 password levels (minimum).

9.12. 10-base-T Ethernet port, rear mounted, with adjustable communication rate from 300 to 38,400 bps (minimum), with 2 password levels (minimum).

9.13. Cyber security access, ports and services user configuration capabilities. Compliant with all current applicable NERC (CIP) standards.

9.14. Internal telephone modem, with adjustable communication rate from 300 to 19,200 baud (minimum), with 2 password levels (minimum).

9.15. TCP/IP accessible; Ethernet compatible.

9.16. A minimum of four analog output channels configurable for Real-Time Data. Analog output will be: -1 to 0 to +1 mA, user programmable, with a compliance voltage of at least +/- 10 volts.

9.17. A minimum of four (4) A, B, or C form output contacts, user selectable for function type, suitable for 125 VDC control "wetting" voltage.

9.18. Twelve load profile channels (minimum); 5-60 minutes data interval storage per channel, a minimum of (8) time of use (TOU) rates; transformer and line loss compensation.

9.19. A minimum of one (1) meter "health" alarm output contact, i.e., a meter health monitor. This meter health monitor contact shall be separate from and in addition to the four output contacts specified in 9.17.

9.20. Meter configuration software, if required. The manufacturer shall certify any meter configuration software is, and future releases shall remain, backward compatible with all earlier versions of the software.

9.21. Remote interrogation access for meter configuration programming and/or MV-90 data retrieval shall be user selectable via telephone connection, RS-232, Ethernet, fiber optic through any communication processor, port switch, sharing device, or data collection device.

9.22. Local interrogation access by direct RS-232 or optical interface connection for meter configuration programming and MV-90 data retrieval using a portable computer. Local interrogation as a data collection method shall be allowed only when remote access is temporarily unavailable.

10. Meter Connection and Enclosure

10.1. Meters shall be installed with a disconnect device on the line side of the meter for isolation to facilitate the safe maintenance and repair of the meter. Disconnecting devices shall open the potential signals and shunt the current signals around the meter. Suggested devices are ABB, model FT test switches or States brand switches of similar style.

10.2. Meter auxiliary power of 125 VDC or 120 VAC will be supplied to a fuse disconnect that is accessible at the meter location. The fusible disconnect shall be capable of using (Lock Out, Tag-Out (LOTO). Operating the meter auxiliary power from the meter PT source will only be allowed when no other power source is available.

10.3. A properly designed space shall be provided to protect meters and other communication equipment from the environment and that meets appropriate State and Federal Safety regulations. A National Electrical Manufacturers Association (NEMA) Type 4X enclosure is required for all outdoor locations.

11. Potential Transformers (PTs)

11.1. Either wound-type potential transformers (PT) or metering accuracy capacitance coupled voltage transformers (CCVT) may be used for metering, provided they meet the requirements under ANSI C57.13 for the following accuracy classifications at system voltages of five (5) kilovolts and higher, three-tenths percent (0.3%) at all burdens W, X, Y, Z. To preserve the accuracy of the waveforms and signals, the manufacturer recommended burdens for potential transformers shall not be exceeded.

11.2. Metering PT or CCVT shall be three phase, grounded WYE connected, having a nominal rated 120 volts phase-to-ground secondary. Delta connections are permitted for Revenue (Load) Meters for serving small pumping or station service loads, <250 KW.

11.3. Meter voltage secondary circuits shall have a cartridge type fuse disconnect for each phase that is accessible at the meter location. The fusible disconnect shall be capable of using LOTO. This fusible disconnect shall be electrically inserted before the meter disconnect. (reference Section 10)

11.4. Western does not routinely test or request the Customer to test metering PTs once they are placed into service, unless there is a suspected accuracy problem; see Section 17. All expenses for a test request will be paid by the requesting entity unless validated as an accuracy issue per Section 17.

12. Current Transformer (CTs)

12.1. All current transformers (CT) used for metering shall be located as close to the delivery or interchange points as practical. They shall be designed and installed such that the power to the meter and transducers will not be interrupted when a line breaker is bypassed (main-transfer bus configuration) or when one of the breakers is opened (ring bus, breaker-and-a-half bus or two breaker bus configurations).

12.2. Three phase CTs will be installed at metering POD, POI or BMP locations and properly grounded to a single CT secondary meter common connection. Delta meter connections are limited only to Revenue (Load) Meters serving small pumping or station service loads, <250 KW.

12.3. CTs for metering shall be of the wound-type and meet the requirements under ANSI C57.13 for an accuracy classification of three tenths percent (0.3%) for loads between 10% to 100%. CT secondary burden rating B1.8

12.4. Interchange or backfeed generation station service loads less than 10% or more than 100%, that have large power directional swings, shall specify accuracy class 0.15%, Extended Range and Extended Accuracy. CT secondary burden rating B1.8.

12.5. A minimum thermal rating factor (RF) of two (2.0) is required. The CT ratio and rating factor combination shall match or exceed all line equipment ratings, which shall be in line with the metering CT. The highest CT ratio/ RF combination shall also match or exceed the maximum expected emergency loading of the circuit. Rating factors of 3.0 or 4.0 and lower CT ratio combinations are desirable for large interchange or generation points.

12.6. A radial load that has a limiting factor of the transformer MVA will not require sizing CT ratios to line conductor, breaker or switch ratings. The CT ratio should be set closer to the present radial load or future MVA limits.

12.7. CT ambient temperature ratings of 40°C are required. Desert locations may require a higher 50°C ambient rating to maintain CT performance.

12.8. Meter CTs shall have a shorting terminal block that shall short and ground each phase current that is accessible at the meter location. This shorting terminal block shall be electrically inserted before the meter disconnects. (reference Section 10)

12.9. Western does not routinely test or request the Customer to test metering CTs once they are placed into service, unless there is a suspected accuracy problem; see Section 17. All expenses for a test request will be paid by the requesting entity unless validated as an accuracy issue per Section 17.

13. Drawings and Equipment Data Requirements

13.1. Western requires drawings and equipment data for its historical files and compliance documentation for every meter installation. These drawings and documents shall be provided to Western at the Customer's expense unless noted otherwise in a contractual agreement. If these drawings and equipment data are not provided, Western reserves the right to generate its own drawings and collect the pertinent equipment data, charging the expense to the Customer's funding account.

13.2. All drawings shall be standard D-size, electronic format AutoCAD or PDF. All data documentation will be electronic format PDF.

13.3. Engineering review requires a minimum of forty-five (45) days prior to the meter's scheduled in-service date.

13.4. All revisions (as-built) of the installation drawings or documentation are required within thirty (30) days following the meter's in-service date.

13.5. Any meter or Meter System equipment that is upgraded, modified, or replaced requires a new set of engineering drawings and data documentation or revisions to the original drawings and documentation.

13.6. Provide a system type drawing showing the meter point location in Western's power system including all substation or line tap breaker and switch numbers, PT and CT device identifiers and power transformer identifiers.

13.7. Provide schematic drawings of Meter System equipment including auxiliary power and communication circuits. Wiring drawings are required when Western maintains any Meter System equipment in a Customer's facility.

13.8. Provide metering PT schematic drawings, single line or three lines, nameplate data, manufacturer's PT accuracy test reports and transformer turns ratio test reports. Winding insulation or power factor testing is required on Western owned or maintained equipment. PTs that are used or stored more than 2 years will require re-testing, prior to placing them in-service at a new location.

13.9. Provide metering CT schematic drawings, single line or three lines, nameplate data, manufacturer's CT accuracy test reports, transformer turns ratio test reports. Winding insulation or power factor testing is required on Western-owned or maintained equipment. CTs that are used or stored more than 2 years will require re-testing, prior to placing them in-service at a new location.

13.10. Provide meter configuration data, MV-90 configuration data and nameplate data. Data shall include, but is not limited to, manufacturer, model, type, form, number of elements, serial number, meter and channel multipliers, data channel configuration and labels, programmed PT and CT ratios, meter ID, phone number, and port switch number.

14. Boundary Meter Data

14.1. A Western BMP requires a dedicated communication channel for the meter real-time AGC data to the Western Operations Center. The primary meter data channel shall carry Real-Time Data and pulse Accumulator Data. Real-time reactive megavar power (Mvar) may be required. Western may require routing this data through a LDC and/or a RDC in Western field offices. The communications path will be owned, operated and maintained by the utility providing the data communication channel(s) or its contractors, and will not utilize public communications circuits that are not maintained by the utility.

14.2. Western may approve an alternative method to receive its AGC data from BMPs by contractual agreement. These alternate methods do not imply approval totalizing and/or summing of discrete AGC meter data points unless needed under 14.2.4. The alternate method requires a communication path that is owned, operated and maintained by the utility supplying the data or its contractors, and will not use public communications circuits.

The following alternative methods are allowed as existing meter conditions or limited exceptions:

14.2.1. Manual readings for small loads (<250kw) where communication access is unavailable.
14.2.2. Customer's meters supplying AGC metering data routed through a LDC and/or a RDC located at another utility's facility.
14.2.3. Customer's meter(s) located within or external of the BA or SBA connected by a contractual transmission path.
14.2.4. Pseudo-Tie (Virtual) Real time AGC value derived from system data points, meter data points, allocations and calculations that will represent the BA's or Sub-BA's best practice, using metering accuracy data points, to replicate a physical Boundary Meter.

14.3. All Western BMPs require an Alternate Data Source (ADS) for the Real-Time Data that is not connected to the same CT source as the primary meter. Relay quality CTs are acceptable for the ADS. The ADS shall be transmitted via a second data channel, such as within the station SCADA RTU, or as a posted ICCP value.

14.4. Western requires that the primary AGC data be duplicated and transmitted independently to its Alternate Control Center (ACC). This may require an additional communications channel or other means approved by Western.

14.5. BAs or other utilities may install a second backup meter or other backup metering devices. Western will not use these as the primary ADS, but may acquire these data points as an alternate, third data resource, if available.

15. Revenue Meter (Intratie, Generation or Load) Real-Time Data

15.1. Meters used that provide power accounting or ancillary service data including, but not limited to, load control, regulation or energy accounting or other transmission services, require real-time MW power and kWh pulse Accumulator data. Real-Time Mvar data may be required. These data may be transmitted via a Customer-owned or leased data channel, contained within the RTU SCADA source or as a posted ICCP value.

15.2. Western requires Real-Time Data for any generation source added (behind the meter) to an existing Customer's POD or POI greater than >1 Megawatt (MW). Real-Time Data may be transmitted over communication circuits that are owned, maintained, controlled or leased by the Customer, contained within the SCADA RTU or ICCP value.

15.3. New Facilities, that have multiple Meter Systems, should not total or sum meter data unless some technical issue, contractual agreement exception or equipment limitation prevents or hinders transmitting discrete meter data individually or within a data stream.

15.4. Western requires that the primary Real-Time Data be duplicated and transmitted independently to its ACC. This may require a second communications channel or other means approved by Western.

16. Maintenance Notification

16.1. All maintenance requests for meters, including Meter System equipment, supplying Real-Time Data, will be coordinated with Western's Outage Coordinators (Links: Exhibit I: Western Contact information) no less than ten (10) business days prior to any scheduled work. The Outage Coordinators will notify all interested parties by their electronic e-mail notification process. A shorter notification period may be permitted if agreed to by all parties.

16.2. Meters supplying only kWh data, with no Real-Time Data connection, require a three (3) day notification of any routine maintenance. Western's Settlements Departments and the load Customer(s) should be notified prior to any testing or maintenance. A shorter notification period may be permitted if agreed to by all parties.

17. Meter Testing Requirements and Responsibilities

17.1. Western owned or Customer shared meters shall be tested once every three (3) years unless a more frequent interval is required by WECC, MRO or NERC standards. Western will not test meters it owns or maintains by contract agreement out-of-sequence of the three (3) year time interval. Any Customer requesting out-of-sequence testing will need to initiate a written request to the appropriate Regional Maintenance Manager. Western Maintenance will then work with Contracts and Finance to draft a letter agreement and invoice the Customer to cover Western's labor for the out-of-sequence testing. The only exception will be to troubleshoot a bad meter data point, and/or to correct meter values or billing data errors.

This Section 17.1 modifies the meter testing and inspection intervals stated in Western's GPCP, or subsequent revisions, where under Provision 6.2 it states: "Metering equipment shall be inspected and tested each year by the party responsible for meter maintenance, unless a different test interval is determined in accordance with good utility practices by an applicable regional metering policy, or as agreed upon by the parties. Meters shall also be tested at any reasonable time upon request by a party hereto, or by an affected supplemental power supplier, transmission agent, or control area operator."

17.2. Western will troubleshoot and repair any reported or suspected problem or error with any Western-owned Meter System equipment or meter communication connectivity at its own expense, provided that all parties have validated their data with each party and it is agreed that the Meter System equipment is the source of the problem or error.

17.3. The Customer (owner or maintenance responsible party) will troubleshoot and repair any reported or suspected problem or error with any meter or meter communication connectivity at its own expense, provided that all parties have validated their data with each party and it is agreed that the Meter System equipment is the source of the problem or error.

17.4. While the meter is out-of-service, technicians will inject test voltage and current to simulate real-time meter data to each party's operation center to confirm correct scaling and data values. Data validation is a unique testing requirement for Boundary Meters and other meters supplying real-time operational data.

17.5. MV-90 and other remote access connectivity and data validation shall be performed before and after any Meter System equipment maintenance.

17.6. In-service or commissioning testing shall be performed at the time of installation and subsequent meter tests. This testing will include 3-phase voltage and current magnitude, load phase angles and power quantities. CT burden testing for existing electro-mechanical or electronic meter installations may be required.

17.7. Meter data errors determined through testing shall follow Western's GPCP Sections 6.3 through 6.5 to resolve the billing errors.

17.8. Western will archive its meter test reports in the maintenance data directory and distribute copies of these test reports to Customers upon request. Presently, there is no NERC/WECC/MRO requirement to maintain these records, but it is required by Western's contractual relationship with its Customers and the historical business practice for documentation of metering billing accuracy.

18. Acronyms

Acronym	Long Name
ACC	Alternate Control Center
ACE	Area Control Error
ADS	Alternate Data Source
AGC	Automatic Generation Control
ANSI	American National Standards Institute
BA	Balancing Authority
BMP	Boundary Meter Point (interchange between BA's)
CIP	Critical Infrastructure Protection (NERC standards)
CRSP	Colorado River Storage Project (Referred collectively as Western)
CT	Current Transformer
DNP3	Distributed Network Protocol Level 3
DSW	Desert Southwest Region (Referred collectively as Western)
GPCP	General Power Contract Provisions
ICCP	Inter-Control Center Communications Protocol
KWh, KVARh	KiloWatt Hour, KiloVar Hour
LOTO	Lock Out, Tag Out (NFPA-NEC)
MRO	Midwest Reliability Organization
MV-90, MV-WEB	Itron Inc. Billing data program and web based Customer data access.
NERC	North American Electric Reliability Corporation
NESC	National Electrical Safety Code
NFPA	National Fire Protection Association
OSHA	Occupational Safety & Health Administration
POD	Point of Delivery
POI	Point of Interconnection or Point of Interchange
PT	Potential Transformer
RMR	Rocky Mountain Region (Referred collectively as Western)
RTU	Remote Terminal Unit
SBA	Sub-Balancing Authority
SCADA	Supervisory Control and Data Acquisition
SNR	Serria Nevada Region (Referred collectively as Western)
TCP/IP	Transmission Control Protocol/Internet Protocol
TLC	Transformer Loss Compensation
TOU	Time of Use
UGP	Upper Great Plains Region (Referred collectively as Western)
VAC	Voltage Alternating Current
VAR, Mvar	Volt-Ampere-Reactive (Instantaneous Reactive Power), Mega-Var
VDC	Voltage Direct Current

Acronym	Long Name
VT	Voltage Transformer
W, KW, MW	Watt (Instantaneous Real Power), Kilo=Watt, Mega-Watt
WECC	Western Electricity Coordinating Council
Western	In this document only, refers to Western's regions and CRSP.

19. Definitions

Term	Definition
Accumulator	Digital counter that is normally referred in metering as a SCADA hourly pulse counter, collecting meter kW digital pulses at a predetermined pulse rate that equals kW-hour.
Alternate Data Source (ADS)	Back-up data source, from a different current transformer, for all real-time meter data used for Boundary Meters. Revenue Meters may also require ADS, depending on Western's operational requirements. Relay quality current transformers are acceptable for the ADS requirement.
Balancing Authority (BA).	The responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority Area, and supports Interconnection frequency in real-time.
Boundary Meter	A Boundary Meter is NERC-compliant equipment located at Western's interconnected or interchange point with another BA. Its primary function is providing Real-Time Data to Western Operations Centers, its ACCs, BAs, and to other utilities or interested parties. The meter provides accounting for power values for Western's AGC and to calculate the ACE required by NERC, WECC and MRO standards. Demand power data is recorded, stored and remotely interrogated for billing and energy accounting purposes by Western's MV-90 data system.
Boundary Meter Point (BMP)	The metered interchange point between Western and other BAs. The BMP may be located in other Customer's facilities.
Customer	Any entity that receives contractual firm electric power, transmission, BA or maintenance services from Western, or is interconnected to Western's system.
Energy Services	Typically billing, scheduling, regulation, control, electric power transactions or other ancillary power services provided by Western to its Customers.
Facilities	Generation station, utility substation, transmission or distribution line tap. Typically, the location of the POD, POI or BMP.
General Power Contract Provisions (GPCP)	Standard terms and conditions included in Western's power delivery and transmission service contracts.
Meter Policy (Policy)	Standards, guidelines, requirements and responsibilities of Western and its Customers for installation of Meter System equipment to measure Energy Services.

Term	Definition
Meter System(s)	The collective equipment required to meter a Customer's interconnection or delivery point. This may include, but is not limited to, the meter, CTs, PTs, CCVTs combination CT and PT transformer packages, modem, port sharing device, phone line sharing device, AC and/or DC power source, AC power protection devices and phone line protective devices, as required.
MV-90 (Itron, Inc.)	Meter interrogation, data collection, and data management program used by Western's Settlements department.
MV-WEB (Itron, Inc.)	Online tool that provides secure and reliable access to Customer load data.
Point of Delivery (POD):	The place where the Customer's facilities or the Customer's transmission agent connects with Western for the delivery of firm electric service. A Load Meter is usually located at a POD. The POD may be located at a Customer's facility.
Point of Interconnection (POI)	The location where the utility, transmission or generation agent connects to Western's power system that may allow bi-directional flow of power between Western's and another party's power system. An Intratie Meter is usually located at a POI. The POI may be located in a Customer's facility.
Real-Time Data	Instantaneous Megawatts, Mega-Vars, and KWH digital pulses transmitted over a communication data channel.
Revenue Meter (Generation)	An energy meter that provides real-time watt and reactive (var) power flow, Kilowatt-hour (kWh) and demand data to Western's Operations and Settlements Departments. It is used for the purpose of scheduling power resources into Western's system and to provide regulation services. Demand power data is recorded, stored and transmitted to Western's MV-90 data system.
Revenue Meter (Intratie)	An energy meter that provides real-time watt and reactive (var) power flow, Kilowatt-hour (kWh) and demand data to Western's Operations and Settlements Departments. It is used for the purpose of billing energy and demand use, as provided by Western, to a Customer. Demand power data is recorded, stored and transmitted to Western's MV-90 data system.
Revenue Meter (Load)	Revenue Meter with the primary function of providing kWh, watt and var demand data to Western's Settlements Departments for the purpose of accounting for loads. Demand power data is recorded, stored and transmitted to Western's MV-90 data system.
Sub-Balancing Authority (SBA)	Transmission Service Provider and/or Power Marketer who markets transmission and power inside a Balancing Authority. SNR operates as a SBA under Sacramento Municipal Utility District.
SCADA	Supervisory Control and Data Acquisition. A proprietary software program used to remotely control equipment, acquire equipment status, monitor system information and provide alarms for equipment malfunctions and problems for operational purposes.

20. References

American National Standards Institute (ANSI)
General Power Contract Provisions (GPCP), dated September 1, 2007
National Electric Manufactures Association (NEMA)
National Electric Reliability Corporation (NERC)
Occupational Safety and Health Administration (OSHA)
Nation Fire Protection Association (NFPA)
National Electric Code (NEC)
Rocky Mountain Meter Policy 03/15/2011
DSW_RMR Meter Policy 08/08/12

21. Exhibits

Exhibits	Rev	Title
Exhibit A	01	Boundary Meter Typical Block Diagram
Exhibit B	01	Intratie or Generation Meter Typical Block Diagram
Exhibit C	01	Revenue Meter Typical Block Diagram
Exhibit D	01	SEL-735V Standard Vertical Case Model Configuration
Exhibit E	01	SEL-735H Standard Horizontal Case Model Configuration
Exhibit F	01	SEl-735H_DSW Standard Horizontal Case Model Configuration
Exhibit G	01	SEL-735EX Standard Easy Extractable Model Configuration
Exhibit H	01	Form 5 and Form 9 Wiring Diagram
Exhibit I	01	Western Contact Information

22. Revision History

Effective Date	Version Number	Revised By	Revision History
11/22/2013	Final	Western Team	Approved Final Version 11/21/2013

23. Point of Contact/Reviewers/Subject Matter Experts

POC/Reviewers/SME	Organization Code	Phone
Claire Douthit	CSO A0200	720-962-7026
John Quintana	CSO A7900	720-962-7296
Matt Miller	CSO A0400	406-255-2871
Scott Mallard	UGP B5000	605-353-2700
Dirk Shulund	UGP B4061	406-255-2841
Michael Radecki	UGP B6200	406-255-2930
Rick Hillis	DSW G5000	602-605-2440
Brian Young	DSW G6200	602-605-2594
Tina Ramsey	DSW G6300	602-605-2565
Matt Caldwell	DSW G5350	602-605-2578
Kevin Howard	RMR J5000	970-461-7261
Nick Klemm	RMR J5500	970-461-7256
Melanie Reed	RMR J6200	970-461-7229
Steve Johnson	RMR J4900	970-461-7451
Diane Glessner	RMR J4200	970-461-7236
Orlando Reyes	RMR J4014	970-461-7288
Bob Springer	RMR J5525	970-240-6362
Richard Ferner	RMR J4240	970-461-7257
Brent Osiek	CRSP L6230	801-524-5495
Lewis Trujillo	SNR N5000	916-353-4090
Daryl Rictor	SNR N5200	916-353-4574
Jeanne Haas	SNR N6200	916-353-4438

24. Approvers

(Image of Signature Page)

Signature	Title	Date
Darrick Moe	*DSW Regional Manager G0000*	12/26/13
Signature		
Bradley Warren	*RMR Regional Manager J0000*	1-31-14
Signature		
Lynn Jeka	*CRSP Manager L0000*	1/7/14
Signature		
Robert Harris	*UGP Regional Manager B0000*	12/15/13
Signature		
Tom Boyko	*SNR Regional Manager N0000*	12/26/13
Signature		

Exhibit A: Boundary Meter Typical Block Diagram

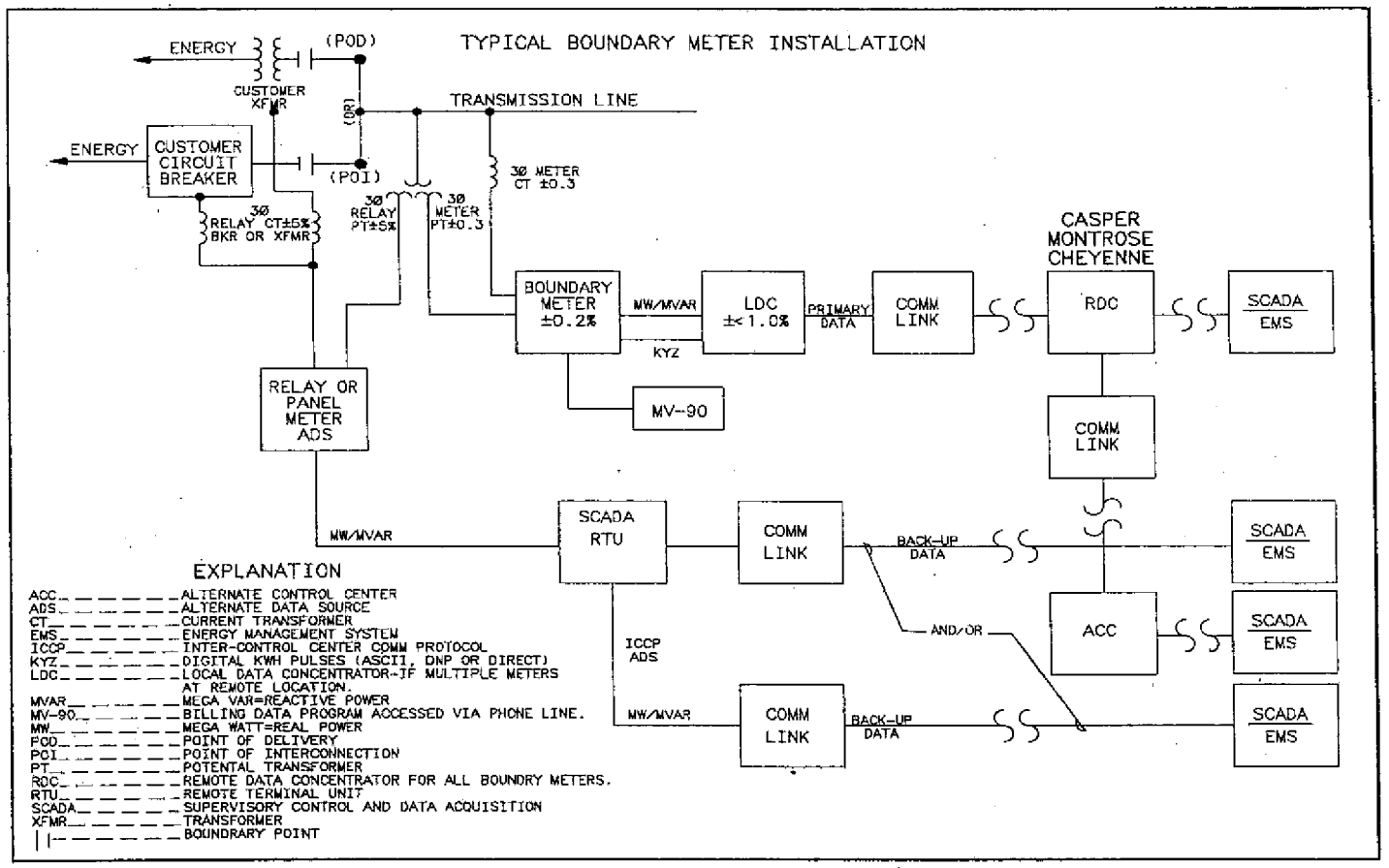


Exhibit B: Intratie or Generation Meter Typical Block Diagram

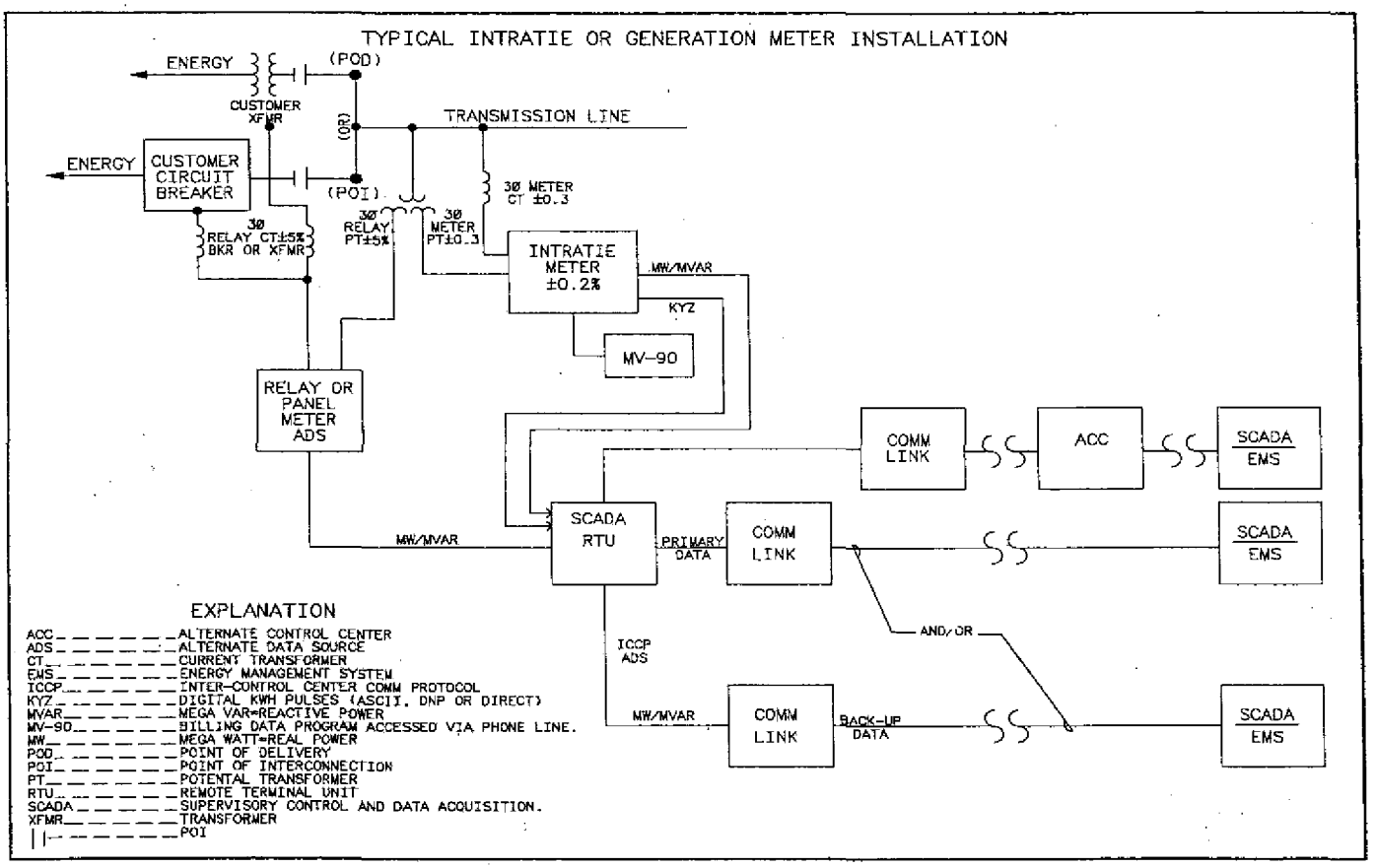


Exhibit C: Revenue Meter Typical Block Diagram

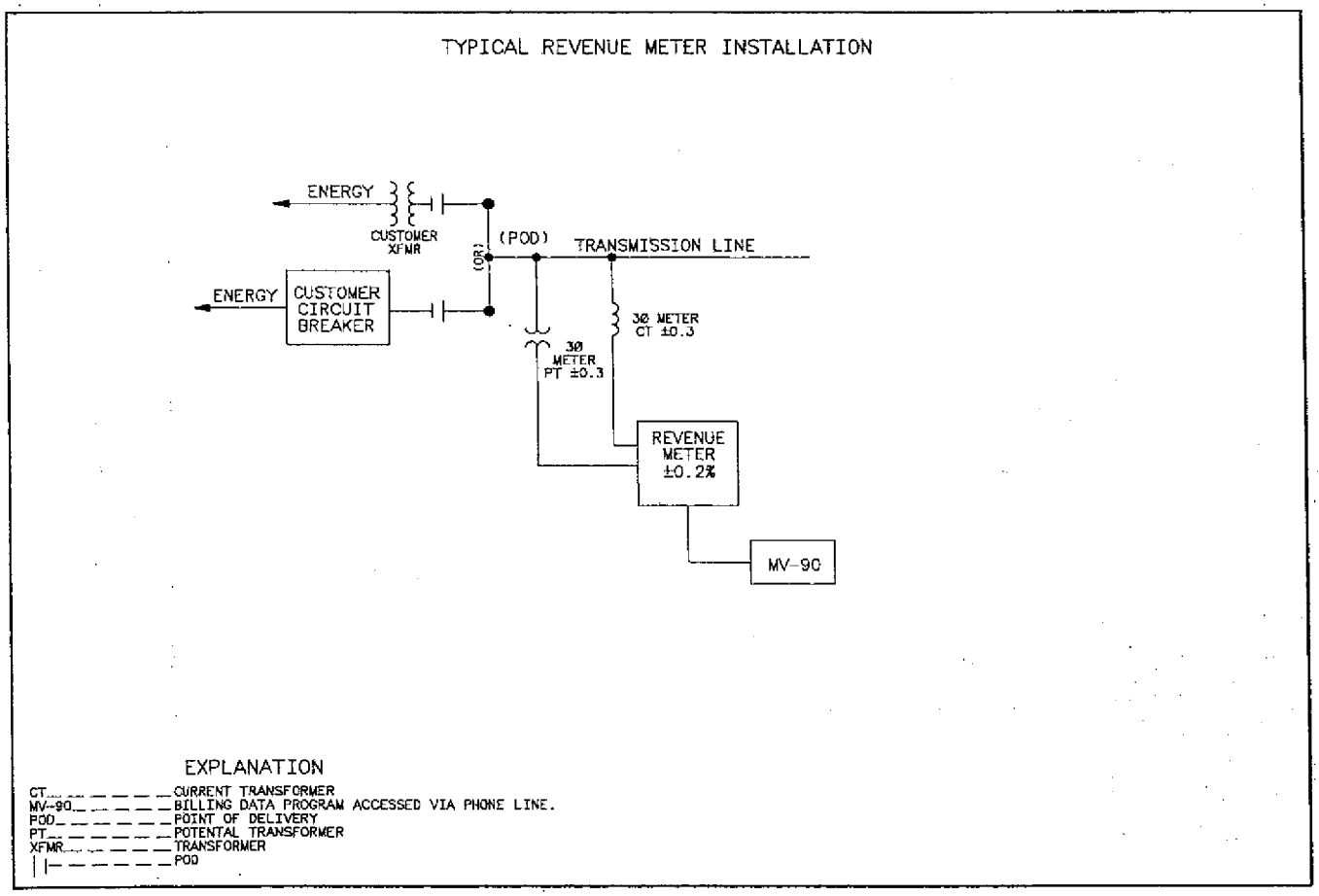


Exhibit D: SEL-735V Standard Vertical Case Model Configuration

SEL Online MOT

Part Number: 0735VX10944CGXCXXX16101XX Key: 1800

Product:	SEL-735	0 7 3 5				0						X			X	X						X	X
Category	**Selection**	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Chassis	Vertical Panel Mount, ANSI Optical Port					V																				
Enclosure	None						X																			
Power Quality and Recording Option	Intermediate PQ and Recording*							1																		
Meter Form	Form 9									9																
Slot A, Power Supply	125/250 Vdc or Vac; 3 Contact Outputs, 2 Inputs										4															
Slot A, Power Supply Control Input Voltage	125 Vdc or Vac											4														
Slot B, Main Board Communications	Two EIA-232 Ports and One 10/100BASE -T Ethernet Port*												C													
Slot C, SELECT Boards	Telephone Modem plus Additional EIA-232 and EIA-485 Port*													G												
Slot D, SELECT Boards	4 ±1 mA Analog Outputs, 4 Solid-State Outputs*															C	X									
Slot D Control Input Voltage	Empty																X									
Slot Z Current and Voltage Inputs	Current Class CL2/10/20, Optimized for Low-End Accuracy																			1						
System Frequency	60 Hz																				6					
Communications Protocol	SEL ASCII, SEL Distributed Port Switch Protocol, SEL Fast Meter, SEL Compressed ASCII, MV-90 Translation™, Modbus® RTU/TCP, MIRRORED BITS® Communications, Telnet, and DNP3 Level 2 Slave Serial and LAN/WAN																					1				
Front-Panel Labeling	ANSI Labeling																						0			
Conformal Coat	None																							1		

Exhibit E: SEL-735H Standard Horizontal Case Model Configuration

SEL Online MOT

Part Number: 0735HX10944CGXCXXX16101XX Key: 1730

Product:	SEL-735	0	7	3	5			0					X			X	X				_		X	X
Category	**Selection**	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Chassis	Horizontal Panel Mount, ANSI Optical Port					H																				
Enclosure	None						X																			
Power Quality and Recording Option	Intermediate PQ and Recording*							1																		
Meter Form	Form 9									9																
Slot A, Power Supply	125/250 Vdc or Vac; 3 Contact Outputs, 2 Inputs										4															
Slot A, Power Supply Control Input Voltage	125 Vdc or Vac											4														
Slot B, Main Board Communications	Two EIA-232 Ports and One 10/100BASE -T Ethernet Port*												C													
Slot C, SELECT Boards	Telephone Modem plus Additional EIA-232 and EIA-485 Port*													G												
Slot D, SELECT Boards	4 ±1 mA Analog Outputs, 4 Solid-State Outputs*															C	X									
Slot D Control Input Voltage	Empty																X									
Slot Z Current and Voltage Inputs	Current Class CL2/10/20, Optimized for Low-End Accuracy																			1						
System Frequency	60 Hz																				6					
Communications Protocol	SEL ASCII, SEL Distributed Port Switch Protocol, SEL Fast Meter, SEL Compressed ASCII, MV-90 Translation™, Modbus® RTU/TCP, MIRRORED BITS® Communications, Telnet, and DNP3 Level 2 Slave Serial and LAN/WAN																					1				
Front-Panel Labeling	ANSI Labeling																						0			
Conformal Coat	None																							1		

Exhibit F: SEL-735H_DSW Standard Horizontal Case Model Configuration

Part Number: 0735AX10944CGXCXXX16101XX Key: 1695

Category	Selection	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Product:	SEL-735	0	7	3	5				0						X			X	X						X	X
Chassis	Horizontal Panel Mount, EIA-232 Port					A																				
Enclosure	None						X																			
Power Quality and Recording Option	Intermediate PQ and Recording*							1																		
Meter Form	Form 9									9																
Slot A, Power Supply	125/250 Vdc or Vac 3 Contact Outputs, 2 Inputs										4															
Slot A, Power Supply Control Input Voltage	125 Vdc or Vac											4														
Slot B, Main Board Communications	Two EIA-232 Ports and One 10/100BASE-T Ethernet Port*												C													
Slot C, SELECT Boards	Telephone Modem plus Additional EIA-232 and EIA-485 Port*													G												
Slot D, SELECT Boards	4 ±1 mA Analog Outputs, 4 Solid-State Outputs*															C	X									
Slot D Control Input Voltage	Empty																X									
Slot Z Current and Voltage Inputs	Current Class CL2/10/20, Optimized for Low-End Accuracy																			1						
System Frequency	60 Hz																				6					
Communications Protocol	SEL ASCII, SEL Distributed Port Switch Protocol, SEL Fast Meter, SEL Compressed ASCII, MV-90 Translation™, Modbus® RTU/TCP, MIRRORED BITS® Communications, Telnet, and DNP3 Level 2 Slave Serial and LAN/WAN																					1				
Front-Panel Labeling	ANSI Labeling																						0			
Conformal Coat	None																							1		

Exhibit G: SEL-735EX Standard Easy Extractable Model Configuration

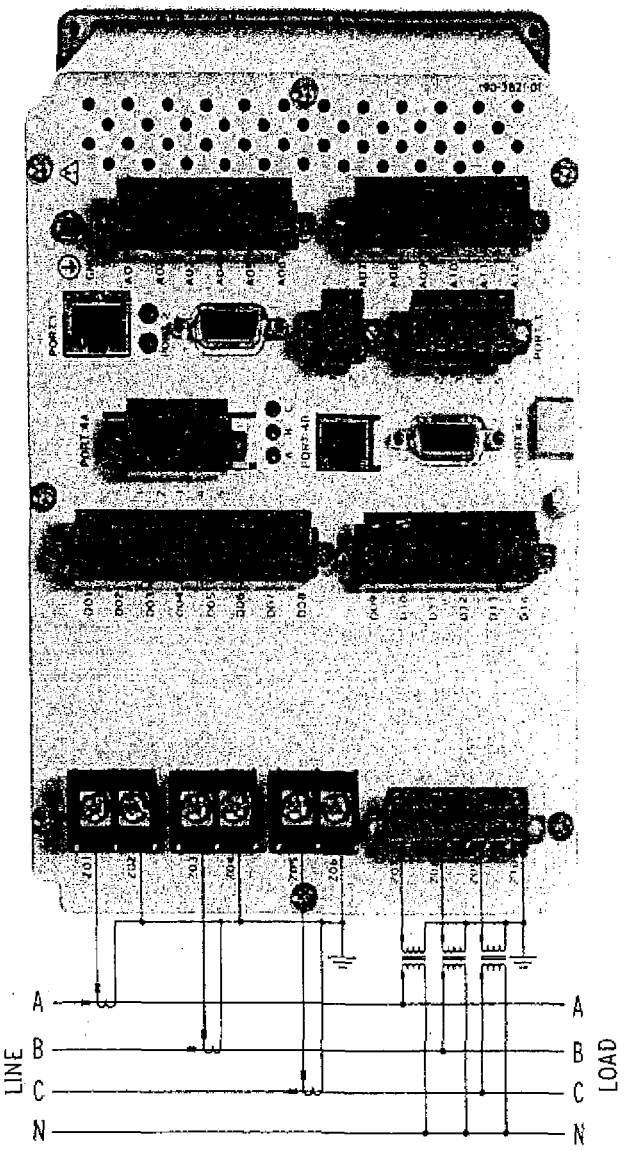
SEL Online MOT Page 1 of 6

Part Number: 0735EX10944CGXCXXX16101XX Key: 1715

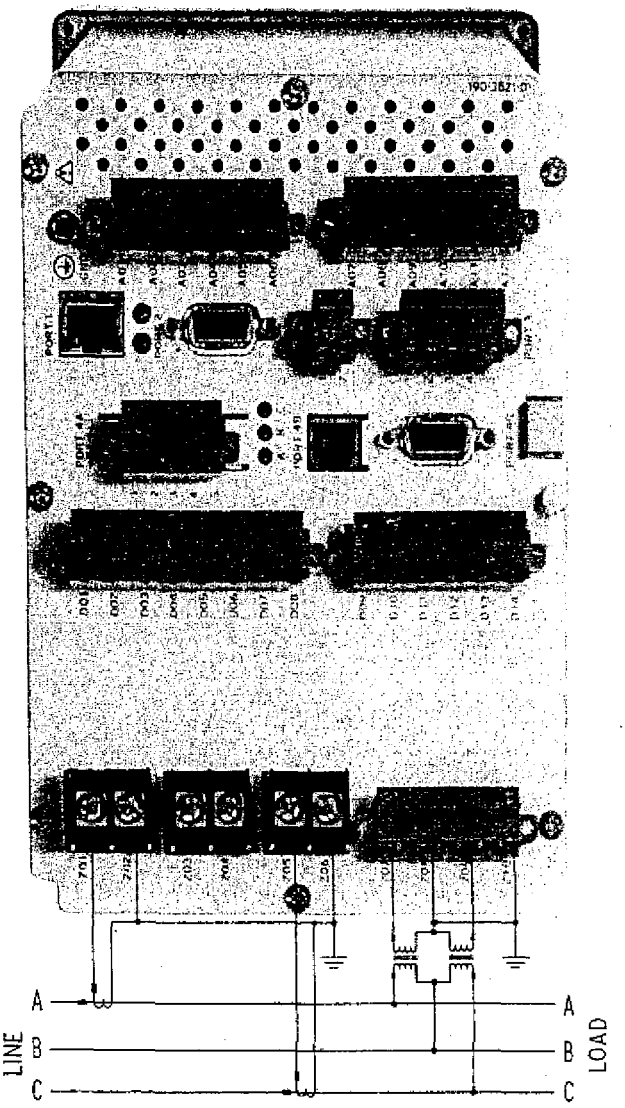
Product:	SEL-735	0 7 3 5 0 X X X X X
Category	**Selection**	**01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25**
Chassis	Easily Extractable Meter (EXM), Vertical Panel Mount, ANSI Optical Port*	E X
Enclosure	None	X
Power Quality and Recording Option	Intermediate PQ and Recording*	1
Meter Form	Form 9	9
Slot A, Power Supply	125/250 Vdc or Vac; 3 Contact Outputs, 2 Inputs	4
Slot A, Power Supply Control Input Voltage	125 Vdc or Vac	4
Slot B, Main Board Communications	Two EIA-232 Ports and One 10/100BASE-T Ethernet Port*	C
Slot C, SELECT Boards	Telephone Modem plus Additional EIA-232 and EIA-485 Port*	G
Slot D, SELECT Boards	4 ±1 mA Analog Outputs, 4 Solid-State Outputs*	C X
Slot D Control Input Voltage	Empty	X
Slot Z Current and Voltage Inputs	Current Class CL2/10/20, Optimized for Low-End Accuracy	1
System Frequency	60 Hz	6
Communications Protocol	SEL ASCII, SEL Distributed Port Switch Protocol, SEL Fast Meter, SEL Compressed ASCII, MV-90 Translation™, Modbus® RTU/TCP, MIRRORED BITS® Communications, Telnet, and DNP3 Level 2 Slave Serial and LAN/WAN	1
Front-Panel Labeling	ANSI Labeling	0
Conformal Coat	None	1

https://gates.selinc.com/onlinemot/Default.aspx?mot_value=0735EX10944CGXCXXX16... 5/14/2012

Exhibit H: SEL-735 Wiring Connections



Form 9, 3-Element, Four-Wire Wye



Form 5, 2-Element, Three-Wire Delta

Exhibit I: Western Contact Information

DSW: Contact them by e-mail or letter for any metering request or access to their MV-WEB data

Link: http://www.wapa.gov/dsw/contact/

DSW Outage Coordinator: (WALCoutage@wapa.gov)

RMR: Requires a Metering Application Agreement (MAA) for every new meter installation except where the installation and funding of the metering system equipment is covered under the scope of another agreement. Existing meters that require system upgrades, change of use, relocations of a POD, POI or BMP, necessitating contractual modifications, also require the MAA.

https://www.wapa.gov/rm/opsmaintRM/documents/Meter%20Application%20and%20Agreement%20Final%205-17-11%202.pdf

RMR Outage Coordinator: (RMROUTAG@wapa.gov)

SNR: Contact them by e-mail request.

Link: http://www.wapa.gov/sn/contact/

SNR Outage Coordinator: (WAMPOC@wapa.gov)

UGP: Contact them by E-mail request:

Link: http://www.wapa.gov/ugp/ContactUs/default.htm

UGP Outage Coordinator: (UGPWAPATOP@wapa.gov)

Attachment No. 2
Contract No. 16-DSR-12708
Eldorado Co-Owners

SECURITY REGULATIONS

1. If SCE or SCE's representative needs to access a WAPA-owned or controlled facility, the following procedure shall be followed:

   1.1 There must be an expressed need to enter the facility.

   1.2 Where access is controlled through the use of a WAPA-issued access control device (i.e. substation key, card key, combination, or any other controlled token necessary to gain access), it shall be requested by SCE or SCE's representative from WAPA's Safety and Security Office.

   1.3 If an access control device is provided to SCE or SCE's representative, SCE will be responsible to assure only authorized personnel are issued access control devices to the authorized WAPA facilities.

   1.4 If a single-access control device is used to allow access to a WAPA facility for one (1) or more of a group of individuals employed by the SCE or SCE's representative, a record must be kept by SCE or SCE's representative to track use of the access control device. When the access control device is not in use, it shall be kept in a secure location by SCE or SCE's representative.

2. SCE or SCE's representative, when granted a WAPA-issued access control device, has the following responsibilities:

   2.1 If an access control device is lost or compromised, it must be reported immediately to the Safety and Security Office. The Safety and Security Office can be contacted by calling WAPA's reception desk at (602) 605-2525, request to speak to the Safety and Security Office, or fax the information to (602) 605-2630.

2.2 If an individual resigns or is no longer employed by SCE or SCE's representative, the access control device is non-transferable and shall be returned to WAPA's Safety and Security Office immediately.

2.3 If the individual leaves SCE or the SCE's representative employment and does not return the issued access control device, SCE or SCE's representative must immediately notify WAPA's Safety and Security Office by phone, as described in subsection 2.1.

3. All non-U.S. Citizen Foreign National SCE or SCE's employees, sub-contractor employees, consultant or visiting representative participating in work which involves access to WAPA facilities, or WAPA information that is not releasable to the public, shall comply with all requirements of the WAPA Unclassified Foreign Visits and Assignments Program (WAPA O 470.1G, Chapter 13, as amended), in Attachment No. 3, attached hereto.

3.1 SCE shall provide an accurate and complete Foreign National Data Card, WAPA Form 3000-72, Attachment No. 3 attached hereto, for each of their Foreign National employees that may visit or work at any WAPA facility. The form must be submitted 30 days prior to the visit or assignment, unless the Foreign National is from a ***sensitive*** country (See WAPA O 470.1, Chapter 13, as amended, for a web site listing of sensitive countries), and then the

form must be submitted at least 45 days in advance of the visit or assignment to the WAPA Security Manager.

Submit WAPA Form 3000-72 to:

Safety and Security Office
Desert Southwest Region
Western Area Power Administration
615 S. 43rd Avenue
Phoenix, AZ 85009

4. If you have a question regarding these requirements, please call WAPA's reception desk.

5. Attachment Nos. 2 and 3 to Contract No. 16-DSR-12708 may be modified in accordance with Section 21 of this Contract.

WAPA O 470.1H
DATE: 03-07-12

CHAPTER 13

FOREIGN VISITS AND ASSIGNMENTS

1. POLICY. All visits and assignments by foreign nationals to the Western Area Power Administration (Western) facilities must be entered into the Foreign Access Central Tracking System (FACTS) prior to any visit or assignment for monitoring and tracking. This Policy includes all contractors working for Western who are foreign nationals. Access to classified systems or areas shall not be permitted to foreign visitors or assignees.

2. REFERENCES.

   a. DOE O 142.3, *Unclassified Foreign Visits and Assignments.*

   b. DOE N 205.2, *Foreign National Access to DOE Cyber Systems.*

   c. WAPA F 3000.72, *Foreign National Data Card for Unclassified Foreign Visits and Assignments.*

   d. *Security Processing Procedure for Visits and Assignments of Foreign Nationals Accessing Western IT Systems.*

3. DEFINITIONS.

   a. Administrator. The Administrator of Western or the acting Administrator.

   b. Assignment. Presence, including employment, of a foreign national at a Department of Energy (DOE)/Western facility for more than 30 calendar days, but less than 2 years. An assignment may be extended for additional periods of up to 2 years after required reviews and approvals are completed for each extension. Assignments are normally for the purpose of participating in work of the facility, gaining experience, or contributing to projects.

   c. Escort. An authorized DOE government or contract employee who has been assigned the responsibility to accompany foreign nationals who lack need-to- know, or access authorization within a security area to ensure compliance with required security measures.

   d. FACTS. The Foreign Access Central Tracking System (FACTS) that monitors and tracks any visit or assignment to DOE facilities.

e. Host. The government employee that is responsible for the visit or assignment. He or she must complete the appropriate forms and receive appropriate approval and submit the forms to the Safety and Security Office within the required timeframes. The host is responsible for the overall visit or assignment.

f. Regional Manager. The Regional Manager of each of Western's Regional Offices or the acting Regional Manager.

g. Visit. The presence of a foreign national at a Western facility for 30 calendar days or less. Visits are normally for the purpose of technical discussion, orientation, observation of projects or equipment, training, or contract service work at the facility. This does not include events or activities open to the public.

4. PROCEDURES.

a. Host Responsibilities.

(1) Non-Sensitive Countries. If the foreign visitor or assignee is from a non-sensitive country, the sponsoring host must complete WAPA 3000.72, *Foreign National Data Card*, submit it to the Regional Manager or Administrator for signature and then forward to the CSO and Regional Safety and Security Office a minimum of 30 calendar days prior to the visit/assignment.

(2) *Sensitive* Countries. If the foreign visitor or assignee is from a sensitive country, the sponsoring host must complete WAPA 300.72, *Foreign National Data Card*, submit it to the Regional Manager or Administrator for signature and then forward to the CSO and Regional Safety and Security Office, a minimum of 45 calendar days prior to the visit/assignment. A list of current sensitive countries can be obtained from the CSO and Regional Safety and Security Offices.

(3) If the visit or assignment is not received within the required timeframes the host is responsible for notifying the prospective visitor or assignee that they will not be granted access to the facility until the appropriate forms have been completed and approved.

(4) At a minimum, the following information on each foreign visitor and assignee must be completed on the WAPA 3000.72, *Foreign National Data Card*:

(a) Complete name (last, first, middle).
(b) Gender.
(c) Country of birth.
(d) City of birth.

(e) Permanent home address.
(f) Date of birth.
(g) Social Security Number (if applicable).
(h) Citizenship.
(i) Passport, Visa, and immigration information.
(j) Country of issue.
(k) Expiration date of passport or Visa.
(l) Employer business name.
(m) Employer business address.
(n) Phone number of business.
(o) Computer system access and network connectivity.
(p) Dates of visit(s).
(q) Areas to be visited.
(r) Host information.

(5) Once the WAPA F 3000.72, *Foreign National Data Card,* is completed by the host it must be immediately signed by the responsible Regional Manager if the visit/assignee is occurring at a Regional facility or by the Administrator if the visit/assignee is occurring at CSO. The host must forward the form to the CSO and Regional Safety and Security Offices for processing.

(6) If the host determines that the foreign visitor or assignee needs Information System access, the host must submit the WAPA F 3000.72, *Foreign National Data Card,* to the CSO and Regional Cyber Security Officer for review and signature.

(7) After the Safety and Security Office develops the security plan, the host must read, sign, and acknowledge the requirements in the security plan (see example). The host must provide the security plan to the foreign visitor or assignee and explain the requirements outlined in the security plan and have the visitor or assignee sign the plan acknowledging they are aware of their requirements.

(8) If an assignment extends beyond the 2-year limit, an extension is required prior to or on the expiration date. The host is required to submit an updated and signed WAPA F 3000.72, *Foreign National Data Card,* to the CSO and Regional Safety and Security Offices before an extension can be approved.

(9) The visit/assignment will be denied or terminated until the host submits the required approved form(s).

b. Safety and Security Responsibilities.

(1) Upon receiving WAPA F 3000.72, *Foreign National Data Card*, the CSO and Regional Safety and Security Offices will enter the information into the DOE FACTS.

(2) The CSO and Regional Safety and Security Offices will create a security plan (see sample plan) that specifies the name of the assignee or visitor, country of citizenship, dates of the visit/assignment, areas to be accessed, prohibited items, escort procedures, badging procedures, and computer access if required. The security plan will be provided to the host to obtain required signatures and the original signed copy will be given back to the CSO and Regional Safety and Security Offices to be maintained in their official files.

(3) The CSO and Regional Safety and Security Offices will be responsible for ensuring the foreign visitor or assignee is given an appropriate foreign national badge (permanent or temporary).

c. Information Technology Responsibilities.

(1) For each Western unclassified information system to which the host requests foreign national access, the appropriate cyber security subject matter expert must review system contents and technical, management and operational controls and provide an assessment of any residual risks that exist based on the nature of the information available through the system, the status of system controls, and the likelihood that secondary and/or elevated access could be obtained.

(2) Foreign Nationals of countries that have been designated by the Secretary of State as State sponsors of terrorism and sensitive countries must not be granted privileged access to any DOE unclassified information system for which approval is required. Privileged access shall include, but not limited to, system administration, database administration, network administration, cyber security, or any access with the capacity to damage DOE cyber security interests or information system assets. Nonspecific request for access to Western IT systems cannot be accepted or approved.

(3) Once the information system review takes place the responsible Cyber Security Officer must sign the WAPA 3000.72, *Foreign National Data Card,* and security plan indicating their acknowledgement and approval of the visit or assignment and return it to the designated host.

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DATE: 03-07-12

SAMPLE SECURITY PLAN

TO: Name and Mail Code
Host

THROUGH: Name and Mail Code
Safety and Security Office

Name and Mail Code Regional
Information Officer

FROM: Name and Mail Code
CSO Safety and Security Manager

SUBJECT: Unclassified Foreign National Visitor Security Plan

This Plan establishes the minimum security measures for protecting DOE sensitive unclassified matter during the (visit or assignment) of a foreign national to the Western Area Power Administration, (name and location) Regional Office. This Plan is for (name) who is a (visitor or assignee) from a (sensitive/non-sensitive) country (country name). List one of the following examples:

- and working as a DOE contracted employee serving the (name and location) Region.
- and a representative from (company name).

The following minimum-security measures will be implemented during the (visit or assignment):

1. AREAS TO BE ACCESSED. Facility:

(List specific locations the foreign national will be located, i.e., conference rooms, office areas, remote locations.)

2. DATES OF VISIT OR ASSIGNMENT. (List specific dates.)

3. PURPOSE OF VISIT OR ASSIGNMENT. (Give very specific details as to the purpose.)

- DOE contracted employee.
- Consultation.
- Perform maintenance on. Product
- demonstration.

4. SENSITIVE SUBJECTS TO BE DISCUSSED. (Identify all potentially sensitive subjects that may be discussed.)

5. BADGING PROCEDURES. (Select one of the following).

- Contract employees who are identified as long-term (6 months or longer) and who have successfully passed a background check will be issued a DOE foreign national badge.

- All others will receive a temporary foreign national badge.

6. BRIEFING OF FOREIGN NATIONAL VISITOR.

- The foreign national may access the following areas: (list areas).

- The following areas are off-limits to the foreign national: (list areas).
- The foreign national shall wear a badge at all times. The badge shall be visible and placed above the waste at the front.

- The following items are prohibited: cameras, cell phones, wireless devices, tape recorders, personal computers, weapons, explosives, other instruments or material likely to produce injury or damage to persons or property, alcoholic beverages, controlled substances, and all other items prohibited by law.

7. ESCORT PROCEDURES. (Select one of the following.)

- DOE contract employees will not require an escort.

- All others will require an escort by the host.

- The host will monitor the foreign national while at Western's facility and report any concerns with compliance to this Plan to the CSO and Regional Safety and Security Offices.

8. AUTHORIZED DATA COLLECTION. (Select one or more of the following.)

- None.

- Photography.

- Video.
- GPS data collection and project coordinates.
- Maps.
- Drawings.
- Other and identify. Western may require visitors/assignees to return specified items collected or distributed while visiting/assigned to Western.

9. COMPUTER ACCESS.

- None.
- Computer on site? Y/N
- Access to Western's Information Systems? Y/N
- Installing software applications to perform presentation/s? Y/N
- Internet access? Y/N
- External devices (flash drive, removable drive, CD's, disks, others) that they will be bringing on site? Y/N

10. MODIFICATIONS. Western may modify this security plan to protect government facilities and information. In the event, Western modifies this security plan, the host and visitor/assignee will be notified. While Western will attempt to provide advance notice of any modifications, in some instances, Western may preclude access to certain areas and systems, first, and then provide notice of the modification of this security plan. After receiving notice of a modification, in the event, the host or the visitor/assignee does not acknowledge the modifications, Western shall terminate the visitor/assignee's access.

11. TERMINATION OF ACCESS. This security plan terminates on (insert date). In the event, this security plan terminates, the visitor or assignee shall have no further access to Western's facilities or systems. Western reserves the right to terminate access for any breach of this security plan.

WAPA O 470.1H
DATE: 03-07-12

12. CERTIFICATION. The host, (name), is responsible for monitoring this security plan during the visit or assignment.

_____
Host Signature

_____
CSO or Regional Cyber Security Officer (if applicable)

_____
CSO or Regional Safety and Security Officer Acknowledgement by the Foreign Visitor or Assignee.

I acknowledge that I have read this security plan and that this plan has been explained to me. I understand the contents of this plan and agree to comply.

_____
Visitor/Assignee Signature

Attachment No. 4
Contract No. 16-DSR-12708
Eldorado Co-Owners

COMPENSATION TO WAPA BY SCE

SCE shall advance the estimated cost specified in the Contract Exhibit(s) to WAPA in order to perform the work described in the Exhibit(s).

If you are sending your payment via **Electronic Funds Transfer (EFT)**, (New York Federal Reserve Bank), please provide your bank with the following information:

ABA (Routing Identifier):	021030004
ALC (Agency Locator Code):	89001602

If you are sending your payment via **Automated Clearing House (ACH)**, (Richmond Federal Reserve Bank), please provide your bank with the following information:

ABA (Routing Identifier):	051036706
Account Number:	312003

WAPA shall apply the funds to the cost of performing the work identified in the Contract Exhibit(s). WAPA shall be under no obligation to perform any work until such funds have been received. In the event the funds advanced by SCE are insufficient, SCE shall, within twenty (20) days after receipt of written notice from WAPA, advance such additional funds as required by WAPA. WAPA shall be under no obligation to return to SCE any funds which are expended for activities specified in the Contract Exhibit(s). All costs for work performed by WAPA will be determined by WAPA.

This Attachment No. 4 to Contract No. 16-DSR-12708 may be modified in accordance with Section 21 of this Contract.

WESTERN AREA POWER ADMINISTRATION
GENERAL INTERCONNECTION CONTRACT PROVISIONS

Provision — Page

* Added Subsection Headings for Clarification, Revised September 26, 2013

1. APPLICABILITY: These General Interconnection Contract Provisions (Provisions) shall be a part of the contract to which they are attached. In the event these Provisions differ from requirements of the contract, specific terms set forth in the contract shall prevail.

2. CHARACTER OF SERVICE: Electric energy supplied or transmitted under the contract, if any, and interconnected systems will be three-phase, alternating current, at a nominal frequency of sixty (60) hertz (cycles per second).

3. CONTINUITY OF SERVICE: Interconnection service will be provided continuously, pursuant to the provisions of the contract, except for: (1) fluctuations, interruptions, or reductions due to uncontrollable forces, as defined in Provision 22 (Uncontrollable Forces) herein, (2) fluctuations, interruptions, or reductions due to operation of devices installed for power system protection; and (3) temporary fluctuations, interruptions, or reductions, which, in the opinion of the party supplying the service, are necessary or desirable for the purposes of maintenance, repairs, replacements, installation of equipment, or investigation and inspection. The party supplying service, except in case of emergency, will give the party to whom service is being provided reasonable advance notice of such temporary interruptions or reductions and will remove the cause thereof with diligence.

4. METERING:

4.1 The total electric power and energy supplied or transmitted under the contract, if any, will be measured by metering equipment to be furnished and maintained by Western, a designated representative of Western, or where situations deem it appropriate as determined by Western, by the Contractor or its agent(s). In the event metering equipment is furnished and maintained by the Contractor or its agent(s) and the equipment is used for billing and other accounting purposes by Western, the Contractor shall ensure that the metering equipment complies with applicable metering policies established by Western.

4.2 Meters shall be secured by appropriate security measures and meters shall not be accessed except when the meters are to be inspected, tested, adjusted, or repaired. Representatives of affected parties shall be afforded reasonable opportunity to be present upon such occasions. Metering equipment shall be inspected and tested each year by the party responsible for meter maintenance, unless a different test interval is determined in accordance with good utility practices by an applicable regional metering policy, or as agreed upon by the parties. Meters shall also be tested at any reasonable time upon request by a party hereto, or by an affected supplemental power supplier, transmission agent, or control area operator. Any metering equipment found to be damaged, defective, or inaccurate shall be repaired and readjusted or replaced by the party responsible for meter maintenance as soon as practicable. Meters found with security breaches shall be tested for tampering and, if appropriate, meter readings shall be adjusted by Western pursuant to Provision 4.3 below.

4.3 Except as otherwise provided in Provision 4.4 hereof, should any meter that is used by Western for billing or other accounting purposes fail to register accurately, the electric power and energy supplied or transmitted during the period of failure to register accurately, shall, for billing purposes, be estimated by Western from the best available information.

4.4 If inspections and tests of a meter used by Western for billing or other accounting purposes disclose an error exceeding 2 percent, or a lesser range in error as agreed upon by the parties, then a correction based upon the inaccuracy found shall be made to the service records for the period of inaccuracy as determined by Western. If the period of inaccuracy cannot be determined, the inaccuracy shall be assumed to have existed during the entire monthly billing period immediately preceding the billing period in which the inspection or test was made and the resulting correction shall be made accordingly.

4.5 Any correction in billing or other accounting information that results from a correction in meter records shall be made in a subsequent monthly bill rendered by Western to Contractor. Payment of such bill shall constitute full adjustment of any claim between the parties arising out of inaccurate metering equipment.

5. CONSTRUCTION, OPERATION, AND MAINTENANCE OF POWER SYSTEMS:

5.1 Contractor's Power System: The Contractor shall, and, if applicable, shall require each of its members or transmission agents to construct, operate, and maintain its power system in a manner which, as determined by Western, will not interfere with the operation of the system of Western or its transmission agents over which electric services are furnished to the Contractor under the contract, and in a manner which will coordinate with the protective relaying and other protective arrangements of the system(s) of Western or Western's transmission agents. Western may reduce or discontinue furnishing services to the Contractor if, after notice by Western, the Contractor fails or refuses to make such changes as may be necessary to eliminate an unsatisfactory condition on the Contractor's power system which is determined by Western to interfere significantly under current or probable conditions with any service supplied from the power system of Western or from the power system of a transmission agent of Western. Such a reduction or discontinuance of service will not relieve the Contractor of liability for any minimum charges provided for in the contract during the time said services are reduced or discontinued. Nothing in this Provision shall be construed to render Western liable in any manner for any claims, demands, costs, losses, causes of action, damages, or liability of any kind or nature arising out of or resulting from the construction, operation, or maintenance of the Contractor's power system.

5.2 Western's Power System: Western shall construct, operate, and maintain its power system in a manner which, as determined by the Contractor, will not interfere with the operation of the system of the Contractor over which services are furnished to Western.

under the contract, and in a manner which will coordinate with the protective relaying and other protective arrangements of the system of the Contractor. The Contractor may reduce or discontinue furnishing services to Western if, after notice by the Contractor, Western fails or refuses to make such changes as may be necessary to eliminate an unsatisfactory condition on Western's power system which is determined by the Contractor to interfere significantly under current or probable conditions with any service supplied from the power system of the Contractor or from the power system. Such a reduction or discontinuance of service will not relieve Western of liability for any minimum charges provided for in the contract during the time said services are reduced or discontinued. Nothing in this Provision shall be construed to render the Contractor liable in any manner for any claims, demands, costs, losses, causes of action, damages, or liability of any kind or nature arising out of or resulting from the construction, operation, or maintenance of Western's power system.

6. BILLING AND PAYMENT:

6.1 Payments of bills issued by a party pursuant to this contract are due and payable by the payor by the date specified on the individual bills for collection, which shall be not sooner than twenty (20) calendar days from the date of issuance, or the next business day thereafter if said day is a Saturday, Sunday, or Federal holiday. Bills shall be considered paid when payment is received by issuing party. Bills will be paid electronically or via the Automated Clearing House method of payment unless a written request to make payments by mail is agreed upon by the parties. Should the parties agree to accept payments by mail, these payments will be accepted as timely and without assessment of the charge provided for in Provision 6.3 if a United States Post Office first class mail postmark indicates the payment was mailed at least three (3) calendar days before the due date.

6.2 The parties agree that net billing procedures will be used for payments due Western by the Contractor and for payments due the Contractor by Western for the sale or exchange of electric power and energy, use of transmission facilities, operation and maintenance of electric facilities, and other services. Payments due one party in any month shall be offset against payments due the other party in such month, and the resulting net balance shall be paid to the party in whose favor such balance exists. The parties shall exchange such reports and information that either party requires for billing purposes. Net billing shall not be used for any amounts due which are in dispute.

6.3 Bills not paid in full by the Contractor by the due date specified on the individual bills for collection shall bear a charge of five hundredths percent (0.05%) of the principal sum unpaid for each day payment is delinquent, to be added until the amount due is paid in full. Western will also assess a fee of twenty-five dollars ($25.00) for processing a late payment. Payments received will first be applied to the charges for late payment assessed on the principal and then to payment of the principal. Western will make payments, including any interest for late payments, in accordance with the Prompt Payment Act, 31 U.S.C. §§ 3901-3907, as amended or supplemented.

6.4 The billing party shall have the right, upon not less than fifteen (15) business days advance written notice, to suspend furnishing the services specified in the contract for nonpayment of bills in full when due, and to refuse to resume such services so long as any part of the amount due remains unpaid. Such a suspension of service will not relieve the delinquent party of liability for minimum charges during the time service is so suspended. The rights reserved herein shall be in addition to all other remedies available to the parties either by law or in equity, for the breach of any of the terms hereof.

7. DESIGN APPROVAL:

7.1 Design Approval for Work in Western's Facilities: All facilities, construction, and installation by the Contractor pursuant to the contract shall be subject to the approval of Western. Facilities interconnections shall normally conform to Western's current "General Requirements for Interconnection," in effect upon the signing of the contract document providing for each interconnection, copies of which are available from Western. At least ninety (90) calendar days, unless otherwise agreed, prior to the date the Contractor proposes to commence construction or to incur an obligation to purchase facilities to be installed pursuant to the contract, whichever date is the earlier, the Contractor shall submit, for the approval of Western, detailed designs, drawings, and specifications of the facilities the Contractor proposes to purchase, construct, and install. The Contractor assumes all risks for construction commenced or obligations to purchase facilities incurred prior to receipt of approval from Western. Western's review and approval of designs and construction work in no way implies that Western is certifying that the designs meet the Contractor's needs.

7.2 Design Approval for Work in Contractor's Facilities: All facilities, construction, and installation by Western pursuant to the contract shall be subject to the approval of the Contractor. At least ninety (90) calendar days, unless otherwise agreed, prior to the date Western proposes to commence construction or to incur an obligation to purchase facilities to be installed pursuant to the contract, whichever date is the earlier, Western shall submit, for the approval of the Contractor, detailed designs, drawings, and specifications of the facilities Western proposes to purchase, construct, and install. Western assumes all risks for construction commenced or obligations to purchase facilities incurred prior to receipt of approval from Contractor. The Contractor's review and approval of designs and construction work in no way implies that the Contractor is certifying that the designs meet Western's needs.

8. INSPECTION AND ACCEPTANCE:

8.1 Inspection and Acceptance by Western in Western's Facilities: Western shall have the right to inspect the materials and work furnished by the Contractor, its agents, employees, and subcontractors pursuant to the contract. Such inspections shall be at reasonable times at the work site. Any materials or work that Western determines is defective or not in accordance with designs, drawings, and specifications, as approved by Western, shall be replaced or modified, as directed by Western, at the sole expense of the Contractor before the new facilities are energized.

8.2 Inspection and Acceptance by the Contractor in the Contractor's Facilities: The Contractor shall have the right to inspect the materials and work furnished by Western pursuant to the contract. Such inspections shall be at reasonable times at the work site. Any materials or work that the Contractor determines is defective or not in accordance with designs, drawings, and specifications, as approved by the Contractor, shall be replaced or modified, as directed by the Contractor, at the sole expense of Western before the new facilities are energized.

9. AS-BUILT DRAWINGS:

9.1 As-Built Drawings Provided by the Contractor to Western: Within a reasonable time, as determined by the Parties, after the completion of construction and installation of facilities pursuant to the contract, the Contractor shall submit to Western marked as- built prints of all Western drawings affected by changes made pursuant to the contract and reproducible drawings the Contractor has prepared showing facilities of Western. The Contractor's drawings of Western facilities shall use drawing title blocks, drawing numbers, and shall be prepared in accordance with drafting standards all as approved by Western. Western may prepare, revise, or complete said drawings and bill the Contractor if the Contractor fails to provide such drawings to Western within 60 calendar days after notification from Western, or other time period as agreed upon by Western and the Contractor.

9.2 As-Built Drawings Provided by Western to the Contractor: Within a reasonable time, as determined by the Parties, after the completion of construction and installation of facilities pursuant to the contract, Western shall submit to the Contractor marked as- built prints of all Contractor drawings affected by changes made pursuant to the contract and reproducible drawings Western has prepared showing facilities of the Contractor. Western's drawings of Contractor facilities shall use drawing title blocks, drawing numbers, and shall be prepared in accordance with drafting standards all as approved by the Contractor. The Contractor may prepare, revise, or complete said drawings and bill Western if Western fails to provide such drawings to the Contractor within 60 calendar days after notification from the Contractor, or other time period as agreed upon by the Contractor and Western.

10. EQUIPMENT OWNERSHIP MARKERS:

10.1 If requested by Western, the Contractor shall identify all movable equipment and, to the extent agreed upon by the parties, all other salvageable facilities constructed or installed on the United States right-of-way or in Western substations pursuant to the contract which are owned by the Contractor, by permanently affixing thereto suitable markers clearly identifying the Contractor as the owner of said equipment and facilities.

10.2 If requested by the Contractor, Western shall identify all movable equipment and, to the extent agreed upon by the parties, all other salvageable facilities constructed or installed on the Contractor's right(s)-of-way or in the Contractor's substations pursuant to the contract which are owned by Western, by permanently affixing thereto suitable markers clearly identifying Western as the owner of said equipment and facilities.

11. CHANGES TO SYSTEM OR USE OF FACILITIES:

11.1 The Contractor shall notify Western of any proposed system change or changes to the use of facilities relating to the facilities governed by the contract.

11.2 Western shall notify the Contractor of any proposed system change or changes to the use of facilities relating to the facilities governed by the contract.

12. CHANGES TO CONTROL FACILITIES:

12.1 Changes to Western Control Facilities: If at any time during the term of the contract, Western determines that changes or additions to control, relay, or communications facilities are necessary to maintain the reliability or control of Western's transmission system, and said changes or additions are entirely or partially required because of the Contractor's equipment installed under the contract, such changes or additions shall, after consultation with the Contractor, be made by Western with all costs or a proportionate share of all costs, as determined by Western, to be paid by the Contractor. Western shall notify the Contractor in writing of the necessary changes or additions and the estimated costs to be paid by the Contractor. If the Contractor fails to pay its share of said estimated costs, Western shall have the right, after giving sixty (60) calendar days' written notice to the Contractor, to terminate the applicable facility installation provisions to the contract and require the removal of the Contractor's facilities.

12.2 Changes to Contractor Control Facilities: If at any time during the term of the contract, the Contractor determines that changes or additions to control, relay, or communications facilities are necessary to maintain the reliability or control of the Contractor's transmission system, and said changes or additions are entirely or partially required because of Western's equipment installed under the contract, such changes or additions shall, after consultation with Western, be made by the Contractor with all costs or a proportionate share of all costs, as determined by the Contractor, to be paid by Western. The Contractor shall notify Western in writing of the necessary changes or additions and the estimated costs to be paid by Western. If Western fails to pay its share of said estimated costs, the Contractor shall have the right after giving sixty (60) calendar days' written notice to Western, to terminate the applicable facility installation provisions to the contract and require the removal of Western's facilities.

13. MODIFICATION OF INTERCONNECTION FACILITIES: Any party may undertake modifications to its facilities. If a party plans to undertake a modification that reasonably may be expected to affect the other parties' facilities, that party shall provide to the other parties sufficient information regarding such modification so that the other parties may evaluate the potential impact of such modification prior to commencement of the work. Such information shall include information concerning the timing of such modifications. The party desiring to perform such work shall use reasonable efforts to provide the relevant drawings, plans, and specifications to the other parties at least ninety (90) calendar days in advance of the commencement of the work or such shorter period upon which the parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed. The parties shall modify the contract, as necessary, to conform to the new facilities arrangements.

14. TRANSMISSION RIGHTS:

14.1 If the contract involves an installation which sectionalizes a Western transmission line or bus, Contractor hereby agrees to provide a transmission path to Western across such sectionalizing facilities at no cost or expense to Western and allow Western use of such sectionalizing facilities as necessary for Western to utilize its transmission line or bus as it had prior to the interconnection. Said transmission path shall be at least equal, in terms of capacity and reliability, as determined by Western using good utility practices, to the path in the Western transmission line or bus prior to the installation pursuant to the contract.

14.2 If Western decides, in its sole discretion, to increase the rating of the sectionalized transmission line or bus referenced in Provision 14.1 above, Western will give ninety (90) calendar days' written notice to Contractor of its intent to increase the rating and identify the date the rating increase is required. Contractor agrees to modify its facilities by this date, or a mutually agreeable alternative date, so that the transmission path shall be equal, in terms of capacity and reliability, as determined by Western using good utility practices, to the path in the rest of the Western transmission line or bus. Unless otherwise agreed to, Contractor shall be responsible for the costs of said modifications.

14.3 If the contract involves an installation which sectionalizes a Contractor transmission line or bus, Western hereby agrees to provide a transmission path to Contractor across such sectionalizing facilities at no cost or expense to Contractor and allow Contractor use of such sectionalizing facilities as necessary for Contractor to utilize its transmission line or bus as it had prior to the interconnection. Said transmission path shall be at least equal, in terms of capacity and reliability, as determined by Contractor using good utility practices, to the path in the Contractor transmission line or bus prior to the installation pursuant to the contract.

14.4 If Contractor decides, in its sole discretion, to increase the rating of the sectionalized transmission line or bus referenced in Provision 14.3 above, Contractor

will give ninety (90) calendar days' written notice to Western of its intent to increase the rating and identify the date the rating increase is required. Western agrees to modify its facilities by this date, or a mutually agreeable alternative date, so that the transmission path shall be equal, in terms of capacity and reliability, as determined by Contractor using good utility practices, to the path in the rest of the Contractor transmission line or bus. Unless otherwise agreed to, Western shall be responsible for the costs of said modifications.

14.5 Ownership of bus facilities by the Contractor in Western's substations at the points of interconnection specified in the contract does not permit Contractor or third parties to make other connections to these bus facilities without Western's prior approval.
Western further retains the right to modify or expand its system and facilities as necessary, including making connections to the Contractor's bus facilities in Western's substations without the Contractor's approval, in accordance with good utility practices.

14.6 Ownership of bus facilities by Western in Contractor's substations at the points of interconnection specified in the contract does not permit Western or third parties to make other connections to these bus facilities without Contractor's prior approval. The Contractor further retains the right to modify or expand its system and facilities as necessary, including making connections to Western's bus facilities in the Contractor's substations without Western's approval, in accordance with good utility practices.

14.7 Any other allowed use of Western's bus facilities by the Contractor, and/or any other allowed use of the Contractor's bus facilities by Western, must be explicitly granted in the contract.

15. CONSTRUCTION AND SAFETY PROCEDURES:

15.1 The Contractor hereby acknowledges that it is aware of the hazards inherent in high-voltage electric lines and substations, and hereby assumes full responsibility at all times for the adoption and use of necessary safety measures required to prevent accidental harm to personnel engaged in the construction, inspection, testing, operation, maintenance, replacement, or removal activities of the Contractor pursuant to the contract. Relating to the work to be performed by the Contractor under the contract, the Contractor and the authorized employees, agents, and subcontractors of the Contractor shall comply with all applicable safety laws and building and construction codes, including the provisions of Chapter 1 of the current Power System Operations Manual, entitled Power System Switching Procedure, and the Occupational Safety and Health Administration regulations, Title 29 C.F.R. §§ 1910 and 1926, as amended or supplemented. In addition to the safety program required herein, upon request of Western, the Contractor shall provide sufficient information to demonstrate that the Contractor's safety program is satisfactory to Western.

15.2 The Contractor and its authorized employees, agents, and subcontractors shall familiarize themselves with the location and character of all the transmission facilities of

Western and interconnections of others relating to the work performed by the Contractor under the contract. Prior to starting any construction, installation, or removal work, the Contractor shall submit a plan of procedure to Western which shall indicate the sequence and method of performing the work in a safe manner. No work shall be performed by the Contractor, its employees, agents, or subcontractors until written authorization to proceed is obtained from Western. Such written authorization or rejection of the plan of procedure must be provided to the Contractor within thirty (30) days of receipt of any plan of procedure.

15.3 At all times when the Contractor, its employees, agents, or subcontractors are performing activities of any type pursuant to the contract, such activities shall be under supervision of a qualified employee, agent, or subcontractor of the Contractor who shall be authorized to represent the Contractor in all matters pertaining to the activity being performed. The Contractor and Western will keep each other informed of the names of their designated representatives at the site.

15.4 Upon completion of its work, the Contractor shall remove from the vicinity of the right-of-way of the United States all buildings, rubbish, used materials, concrete forms, and other like material belonging to the Contractor or used under the Contractor's direction, and in the event of failure to do so the same may be removed by Western at the expense of the Contractor.

15.5 In the event the Contractor, its employees, agents, or subcontractors fail to comply with any requirement of this Provision 15, or Provision 8 (Inspection and Acceptance) herein, Western or an authorized representative may issue an order to stop all or any part of the work until such time as the Contractor demonstrates compliance with the provision at issue. The Contractor, its employees, agents, or subcontractors shall make no claim for compensation or damages resulting from such work stoppage.

16. ENVIRONMENTAL COMPLIANCE: Facilities installed under the contract by any party shall be constructed, operated, maintained, replaced, transported, and removed subject to compliance with all applicable laws, including but not limited to the National Historic Preservation Act of 1966, 16 U.S.C. §§ 470x-6, the National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4347, the Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1544, and the Archaeological Resources Protection Act of 1979, 16 U.S.C. §§ 470aa-470mm, and the regulations and executive orders implementing these laws, as they may be amended or supplemented, as well as any other existing or subsequent applicable laws, regulations, and executive orders.

17. RESPONSIBILITY FOR REGULATED MATERIALS: When a party owns equipment containing regulated material located on the other party's substation, switchyard, right-of-way, or other property, the equipment owner shall be responsible for all activities related to regulated materials in such equipment that are necessary to meet the requirements of the Toxic Substances Control Act, 15 U.S.C. §§ 2601-2692, the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901-6992k, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9601-9675, the Oil Pollution Act of 1990, 33 U.S.C. §§ 2702-2761, the Clean Water Act, 33 U.S.C. §§ 1251-1387, the Safe Drinking Water Act, 42 U.S.C. §§ 300f- j26, and the regulations and executive orders implementing these laws, as they may be amended or supplemented, and any other existing or subsequent applicable laws, regulations, and executive orders. Each party shall label its equipment containing regulated material in accordance with appropriate laws and regulations. If the party owning the equipment does not perform activities required under appropriate laws and regulations within the time frame specified therein, the other party may perform or cause to be performed the required activities after notice to and at the sole expense of the party owning the equipment.

18. AUTHORIZED REPRESENTATIVES OF THE PARTIES: Each party to the contract, by written notice to the other, shall designate the representative(s) who is (are) authorized to act in its behalf with respect to those matters contained in the contract which are the functions and responsibilities of the authorized representatives of the parties. Each party may change the designation of its authorized representative(s) upon oral notice given to the other, confirmed promptly by written notice.

19. NOTICES: Any notice, demand, or request specifically required by the contract or these Provisions to be in writing shall be considered properly given when delivered in person or sent by postage prepaid registered or certified mail, commercial delivery service, facsimile, electronic, prepaid telegram or by other means with prior agreement of the parties, to each party's authorized representative at the principal offices of the party. The designation of the person to be notified may be changed at any time by similar notice. Where facsimile or electronic means are utilized for any communication covered by this Provision, the sending party shall keep a contemporaneous record of such communications and shall verify receipt by the other party.

20. EFFECT OF SECTION HEADINGS: Section headings or Provision titles appearing in the contract or exhibits are inserted for convenience only and shall not be construed as interpretations of text.

21. OPERATING GUIDELINES AND PROCEDURES: The parties to the contract may agree upon and put into effect from time to time, such other written guidelines and procedures as may be required in order to establish the methods of operation of the power system to be followed in the performance of the contract.

22. UNCONTROLLABLE FORCES: No party to the contract shall be considered to be in default in performance of any of its obligations under the contract, except to make payment as specified in Provision 6 (Billing and Payment) herein, when a failure of performance shall be due to an uncontrollable force. The term "uncontrollable force" means any cause beyond the control of the party affected, including but not restricted to, failure of or threat of failure of facilities, flood, earthquake, storm, fire, lightning, epidemic, war, riot, civil disturbance or disobedience, labor dispute, labor or material shortage, sabotage, restraint by court order or public authority and action or nonaction by, or failure to obtain the necessary authorizations or approvals from, any governmental agency or authority, which by exercise of due diligence such party could not reasonably have been expected to avoid and which by exercise of due diligence it shall be unable to overcome. Nothing contained herein shall be construed to require a party to settle any strike or labor dispute in which it may be involved. Any party rendered unable to fulfill any of its obligations under the contract by reason of an uncontrollable force shall give prompt written notice of such fact to the other party and shall exercise due diligence to remove such inability with all reasonable dispatch. Such party shall give written notice to the other party of the removal of the uncontrollable force as soon as practicable.

23. LIABILITY:

23.1 The Contractor hereby agrees to indemnify and hold harmless Western, its employees, agents, or contractors from any loss or damage and from any liability on account of personal injury, death, or property damage, or claims for personal injury, death, or property damage of any nature whatsoever and by whomsoever made arising out of the Contractors', its employees', agents', or subcontractors' construction, operation, maintenance, or replacement activities under the contract.

23.2 Western is liable only for negligence on the part of its officers and employees in accordance with the Federal Tort Claims Act, 28 U.S.C. §§ 1346(b), 1346(c), 2401(b), 2402, 2671, 2672, 2674-2680, as amended or supplemented.

24. COOPERATION OF CONTRACTING PARTIES: If, in the operation and maintenance of their respective power systems or electrical equipment and the utilization thereof for the purposes of the contract, it becomes necessary by reason of any emergency or extraordinary condition for either party to request the other to furnish personnel, materials, tools, and equipment for the accomplishment thereof, the party so requested shall cooperate with the other and render such assistance as the party so requested may determine to be available. The party making such request, upon receipt of properly itemized bills from the other party, shall reimburse the party rendering such assistance for all costs properly and reasonably incurred by it in such performance, including administrative and general expenses, such costs to be determined on the basis of current charges or rates used in its own operations by the party

rendering assistance. Issuance and payment of bills for services provided by Western shall be in accordance with Provision 6 (Billing and Payment) herein. Western shall pay bills issued by the Contractor for services provided as soon as the necessary vouchers can be prepared which shall normally be within twenty (20) calendar days.

25. TRANSFER OF INTEREST IN CONTRACT: No voluntary transfer of the contract or of the rights of an entity under the contract shall be made without the prior written approval of all parties, such approval not to be unreasonably withheld or delayed.

26. CHOICE OF LAW AND FORUM: Federal law shall control the obligations and procedures established by this contract and the performance and enforcement thereof. The forum for litigation arising from this contract shall exclusively be a Federal court of the United States, unless the parties agree to pursue alternative dispute resolution.

27. WAIVERS: Any waivers at any time by either party to the contract of its rights with respect to a default or any other matter arising under or in connection with the contract shall not be deemed a waiver with respect to any subsequent default or matter.

28. CONTINGENT UPON APPROPRIATIONS AND AUTHORIZATION:

28.1 Where activities provided for in the contract or these Provisions extend beyond the current fiscal year, continued expenditures by Western are contingent upon Congress making the necessary appropriations required for the continued performance of Western's obligations under the contract and these Provisions. In case such appropriation is not made, the Contractor and/or all other signatories to this contract hereby releases Western from its obligations under the contract and these Provisions, and from all liability due to the failure of Congress to make such appropriation.

28.2 In order to receive and expend funds advanced from the Contractor, and/or all other signatories to this contract, necessary for the continued performance of the obligations of Western under the contract, additional authorization may be required. In case such authorization is not received, Contractor, and/or all other signatories to this contract, hereby releases Western from those contractual obligations and from all liability due to the lack of such authorization.

29. COVENANT AGAINST CONTINGENT FEES: The Contractor and/or all other signatories to this contract warrants that no person or selling agency has been employed or retained to solicit or secure the contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor and/or all other

signatories to this contract for the purpose of securing business. For breach or violation of this warranty, Western shall have the right to annul the contract without liability or in its discretion to deduct from the contract price or consideration the full amount of such commission, percentage, brokerage, or contingent fee.

30. CONTRACT WORK HOURS AND SAFETY STANDARDS: The contract, to the extent that it is of a character specified in Section 103 of the Contract Work Hours and Safety Standards Act (Act), 40 U.S.C. § 3701, as amended or supplemented, is subject to the provisions of the Act, 40 U.S.C. §§ 3701-3708, as amended or supplemented, and to regulations promulgated by the Secretary of Labor pursuant to the Act.

31. EQUAL OPPORTUNITY EMPLOYMENT PRACTICES: Section 202 of Executive Order No. 11246, 30 Fed. Reg. 12319 (1965), as amended by Executive Order No. 12086, 43 Fed. Reg. 46501 (1978), as amended or supplemented, which provides, among other things, that the Contractor and/or all other signatories to this contract will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin, is incorporated herein by reference the same as if the specific language had been written into the contract, except that Indian Tribes and tribal organizations may apply Indian preference to the extent permitted by Federal law.

32. USE OF CONVICT LABOR: The Contractor and/or all other signatories to this contract agree not to employ any person undergoing sentence of imprisonment in performing the contract except as provided by 18 U.S.C. § 3622(c), as amended or supplemented, and Executive Order No. 11755, 39 Fed. Reg. 779 (1973), as amended or supplemented.

33. DISPUTE RESOLUTION: In the event of a dispute arising out of or relating to this contract such party (the "Disputing Party") shall provide the other signatories with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other party. Each designated senior representative shall have authority to make decisions on the party's behalf with respect to that party's rights and obligations under the contract. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) calendar days of the other party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the parties, be submitted to an individual or organization for alternative dispute resolution. In the event the parties do not agree to submit such claim or dispute for alternative dispute resolution, each party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this contract. Neither the giving of a Notice of Dispute, nor the pendency of any dispute resolution process as described in this Provision, shall relieve a party of its obligations under this contract, extend any notice period

described in this contract, or extend any period in which a party must act as described in this contract. Notwithstanding the requirements of this Provision, any party may terminate this contract in accordance with its provisions, or pursuant to an action at equity. The issue of whether such a termination is proper shall not be considered a dispute hereunder.