

**AMENDMENT NO. 2
TO THE AGREEMENT FOR SERVICES
BETWEEN THE
CITY OF SANTA CLARA, CALIFORNIA,
AND
ELECTRICAL CONSULTANTS, INC.**

PREAMBLE

This agreement ("Amendment No. 2") is entered into between the City of Santa Clara, California, a chartered California municipal corporation (City) and Electrical Consultants, Inc. a Montana corporation, (Contractor). City and Contractor may be referred to individually as a "Party" or collectively as the "Parties."

RECITALS

- A. The Parties previously entered into an agreement entitled "Agreement for Design Professional Services" dated October 21, 2020 (Agreement) for the purpose of having Contractor provide review, inspection, and analysis necessary to prepare for a System Expansion Plan of the City's electric system; and
- B. The Agreement was previously amended by Amendment No. 1, dated December 16, 2021. The Agreement and all previous amendments are collectively referred to herein as the "Agreement as Amended"; and
- C. The Parties now wish to amend the agreement to extend the Term and to increase the maximum compensation.

NOW, THEREFORE, the Parties agree as follows:

AMENDMENT TERMS AND CONDITIONS

- 1. Paragraph 2 of the Agreement as Amended, entitled "TERM OF AGREEMENT" is amended to read as follows: "Unless otherwise set forth in this Agreement or unless this paragraph is subsequently modified by a written amendment to this Agreement, the term of this Agreement shall begin on October 1, 2020, and terminate on December 31, 2025."

- 2. Section 6 of the Agreement as Amended, entitled "COMPENSATION AND PAYMENT" is amended to read as follows:

"In consideration for Contractor's complete performance of Services, City shall pay Contractor for all materials provided and Services rendered by Contractor in accordance with Exhibit B, entitled "COMPENSATION AND FEE SCHEDULE." The Maximum Compensation of this Agreement is one million five hundred thousand dollars (\$1,500,000), subject to budget appropriations, which includes all payments for the Services and expenses, supplies, materials and equipment required to perform the Services. All Services performed or materials provided in excess of the Maximum Compensation shall be at Contractor's expense. City does not guarantee any minimum compensation under this Agreement.

Contractor shall not be entitled to any payment above the Maximum Compensation under any circumstance."

3. Exhibit A Scope of Services shall be deleted and replaced with the attached Exhibit A – Scope of Services – Amended September 1, 2023.
4. Exhibit B – Schedule of Fees shall be deleted and replaced with the attached Exhibit B – Compensation and Fee Schedule – Amended September 1, 2023
5. Except as set forth herein, all other terms and conditions of the Agreement as Amended shall remain in full force and effect. In case of a conflict in the terms of the Agreement as Amended and this Amendment No.2, the provisions of this Amendment No. 2 shall control.

The Parties acknowledge and accept the terms and conditions of this Amendment No. 2 as evidenced by the following signatures of their duly authorized representatives.

CITY OF SANTA CLARA, CALIFORNIA
a chartered California municipal corporation

Approved as to Form:

Dated: 10/12/23

Daniel Ballin

Daniel Ballin (Oct 12, 2023 12:27 PDT)

GLEN R. GOOGINS
City Attorney

JOVAN D. GROGAN

City Manager
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050
Telephone: (408) 615-2210
Fax: (408) 241-6771

"CITY"

ELECTRICAL CONSULTANTS, INC.
a Montana corporation

Dated: 09/29/2023

By (Signature):

David R Maehl

Name: David R. Maehl

Title: Vice President Power Supply

Principal Place of Business Address: 3521 Gabel Road
Billings, Montana 59102

Email Address: Dave.maehl@eciusa.com

Telephone: (406) 259-9933

"CONTRACTOR"

**AMENDMENT NO. 2
AGREEMENT FOR DESIGN PROFESSIONAL SERVICES
BETWEEN THE
CITY OF SANTA CLARA, CALIFORNIA
AND ELECTRICAL CONSULTANTS, INC.
EXHIBIT A – SCOPE OF SERVICES
AMENDED SEPTEMBER 1, 2023**

The Services to be performed for the City by the Contractor under this Agreement are set forth below.

1. Contractor Scope

- 1.1. Contractor shall perform all the review, inspection, and analysis necessary to prepare a System Expansion Plan for Silicon Valley Power's (SVP) electric system. The plan shall provide an assessment of the current electric system and a complete plan for its future development.
- 1.2. The System Expansion Plan shall include a minimum of the following items:
 - 1.2.1. Contractor shall provide a detailed 3-year development plan of SVP's electric system expansion to meet the significant new load being connected to SVP's system. The focus will be on building multiple capital improvement projects in parallel to meet the 3-year short term capacity need while maintaining electric system reliability. Working with SVP, Contractor will prioritize the projects and provide a strategy, schedule, and estimated cost for their completion. All projects in the detailed 3-year plan are to include preliminary engineering (30% plans - constructability reviewed and sequencing with remaining projects) and specify any permitting requirements, land requirements, and construction scope. Contractor will provide guidance on establishing proper maintenance of proposed new assets and technology. Contractor completed these Services prior to the effective date of Amendment No. 2.
 - 1.2.2. Constructor shall provide the basis for updating the Load Development Fee per the final System Expansion Plan. The Load Development Fee is established to recover costs incurred by the City in modifying its electrical infrastructure to support load growth spurred by new development.
 - 1.2.3. Contractor shall provide a high level 20-year development plan of SVP's electric system expansion to meet high, medium, and low load trajectory scenarios for future load growth. The focus will be on building a footprint for SVP to meet future load growth over the next 20 years while maintaining electric system reliability.
 - 1.2.4. Working with SVP, Contractor will recommend the ultimate

need, capacity, configuration, and method of service, for proposed new substations and the future disposition of each existing substation considering the current property size, age and condition of the equipment, estimated remaining life, and number of feeders. Contractor completed these Services prior to the effective date of Amendment No. 2.

- 1.2.5. Contractor shall assess SVP's submission to the California Independent System Operator's (CAISO) Transmission Planning Process (TPP) to ensure that PG&E Bulk Electric System (BES) projects have been identified and are on schedule to meet SVP's load growth. In addition, Contractor shall assess SVP's Transmission Planning process to meet CAISO, Western Electricity Coordinating Council (WECC), and TPL-001-5. Contractor completed these Services prior to the effective date of Amendment No. 2.
- 1.2.6. Contractor shall assess SVP's CEC load forecast submittals used to generate the biennial Integrated Energy Policy Report (IEPR). Contractor completed these Services prior to the effective date of Amendment No. 2.
- 1.2.7. Contractor shall assess the impact of increased future distributed generation and load (i.e. solar, battery storage, electric vehicles) and provide recommendations regarding the most optimal integration with the distribution system and possible use of distributed generation by SVP to improve system efficiency and reliability. Contractor completed these Services prior to the effective date of Amendment No. 2.
- 1.2.8. Contractor shall assess the condition of the existing electric system and recommend maintenance and capital replacements as required. The assessment should also consider the future impact of aging infrastructure. Contractor completed these Services prior to the effective date of Amendment No. 2.
- 1.2.9. Contractor shall review current system, substation, and feeder load projections for reasonableness and use the results to determine the ultimate system, substation, and feeder plan. Contractor shall assess the potential problems if actual loads differ significantly from projected loads. Contractor completed these Services prior to the effective date of Amendment No. 2.
- 1.2.10. Contractor shall assess system reliability and provide cost/benefit analysis and estimated levels of improvement for recommendations on ways to maintain or improve it. Contractor completed these Services prior to the effective date of Amendment No. 2.
- 1.2.11. Contractor shall assess system losses and provide cost/benefit

analysis for recommendations on ways to reduce system losses.

- 1.2.12. Contractor shall assess the future reactive power requirements/need for power factor improvement to the electric substation, distribution, 230kV/115kV/60 kV transmission systems and include a benefit/cost analysis of feeder capacitors versus substation capacitors. Contractor completed these Services prior to the effective date of Amendment No. 2.
- 1.2.13. Contractor shall prepare a report on each of the standards and guidelines listed below including (1) an assessment of the adequacy of the standards and guidelines, (2) note any deficiencies, (3) recommend changes that can be immediately incorporated into guidelines and standards, and (4) if deemed necessary, a recommended plan to bring each guideline or standard up to relevant industry standards and current practices, including mitigation of arc-flash hazards. Additionally, Contractor shall address the absence of any standards and guidelines that a utility the size of SVP should have and provide recommendations made on how to best produce those standards and guidelines.
 - 1.2.13.1. Existing system planning criteria, including conductor and equipment rating, loading, short circuit studies, capacity determination for substations, transmission lines, distribution lines, and service facilities.
 - 1.2.13.2. Engineering design guidelines for substations, transmission lines, distribution lines, and service facilities.
 - 1.2.13.3. Conductor and equipment loading capacities (under both normal full load and Emergency conditions) for substations, transmission lines, distribution lines and service facilities.
 - 1.2.13.4. Material and equipment standards and specifications.
 - 1.2.13.5. Economic evaluation criteria and methods for determination of return on investment.
- 1.2.14. Contractor shall identify the opportunities to utilize the enabling technology resulting from SVP's Advanced Metering Infrastructure (AMI) and Smart Grid deployment and recommend the most effective methods to utilize and capture value from the proposed Smart Grid initiatives over the next five and twenty-year planning periods.
- 1.2.15. Contractor shall assess and make recommendations for improvements to SVP's current emergency response plans,

system restoration capabilities, energy control center and back-up control center facilities, emergency material stockpiling, and feeder back-up capacity.

- 1.2.16. Contractor shall review current engineering, operations and electric system Key Performance Indicators (KPIs) in use and make recommendations regarding the adequacy and validity of the KPI's. Contractor completed these Services prior to the effective date of Amendment No. 2.
- 1.2.17. Contractor shall assess the adequacy of existing vegetation management programs and standards and make recommendations for improvements.
- 1.2.18. Contractor shall perform associated engineering and consulting support.. Tasks shall include CAISO application support for BESS integration as well as KRS / SRS short circuit study. Contractor completed these Services prior to the effective date of Amendment No. 2.
- 1.2.19. Contractor shall perform review of Main Power Transformer Specifications through its subconsultant, Mr. Pierre Feghali, P.E.
- 1.2.20. Contractor shall support the TPP 23/24 Study including:
Contractor completed these Services prior to the effective date of Amendment No. 2.
 - 1.2.20.1 Load Flow Analysis
 - 1.2.20.2 Report Preparation
 - 1.2.20.3 Weekly Meetings
- 1.2.21. Contractor shall support the System Expansion Plan for TPP 24/25 Study including:
 - 1.2.21.1 Load Flow Analysis
 - 1.2.21.2 Report Preparation
 - 1.2.21.3 Weekly Meetings
- 1.2.22 Contractor shall draft Department of Energy (DOE) application for Smart Wires Project / Owner's Engineer and provide application support.
- 1.2.23 Contractor shall provide Geomagnetic Disturbance (GMD) Study support to PowerWorld. This includes interface with SVP Engineering personnel and PowerWorld technical staff throughout the duration of the GMD Study.
- 1.2.24 Contractor shall provide spatial analysis for load growth projections and EV/electrification impacts to load growth scenarios.
- 1.2.25 Contractor shall provide miscellaneous engineering services. This

incorporates study requests from SVP Engineering staff including development of a 2023 SVP Transmission Expansion Plan (STEP) Study which contains power flow analysis for evaluation of Alternating Current (AC) thermal and voltage levels with consideration of various load ramps and sensitivity cases.

- 1.2.31 Contractor shall provide Current Distribution Electromagnetic Fields Grounding and Soil Structure Analysis CDEGS & Ampacity analysis, thermal and electrical resistivity reports for the City Park ground study.
- 1.3. Deliverables are to be complete by the end of the contract term.
- 1.4. While performing services, Contractor shall conduct all necessary meetings and interviews, keep minutes and interview summaries as requested, and provide copies to SVP.
2. At the conclusion of the project, the Contractor shall provide electronic copies of all final reports, worksheets, system studies and data associated with this project to SVP in (but not limited to) .pdf, .docx, .xlsx, .xml, .dwf, .dwg, .sav formats as applicable and that are not proprietary in nature. If work is complete in PowerWorld, Contractor to ensure the deliverable is provided in proper and functional GE PSLF format.
3. E-BUILDER
 - 3.1. When required by City, Contractor shall use utilize e-Builder for submission of data and documents throughout the term of this agreement.
 - 3.2. e-Builder is a web-based construction management application hosted by e-Builder, Inc. For certain projects to be defined by the City, e-Builder shall be the primary means of project information submission and management or as otherwise agreed upon with the City.
 - 3.3. The City will establish the Contractor's access to e-Builder by providing licenses to Contractor's personnel at City's cost. The Contractor's designated users will be required to set up their computers/systems to use e-Builder in accordance to the e-Builder User Training Guide. The City reserves the right to limit the licenses issued to Contractor in the future.
 - 3.4. Contractor is required to obtain all necessary training to use the software. The City will provide one classroom training or a web-based seminar. A training session is 1-2 hours.
 - 3.5. e-Builder is a web-based environment and therefore it is subject to the inherent speed and connectivity limitations of the Internet. Contractor is responsible for its own connectivity to the Internet. e-Builder's response time is dependent on the Contractor's equipment, including processor speed, Internet access speed, etc., and current traffic on the Internet. The City will not be liable for any delays associated with the usage of e-Builder including, but not limited to slow response time, downtime periods, connectivity problems, or loss of information. The Contractor shall ensure

connectivity to the e-Builder system whether at the home office or job site. Under no circumstances will the usage of e-Builder be grounds for a time extension or cost adjustment to the Agreement.

- 3.6. Data entered in a collaborative mode (entered with the intent to share as determined by permissions and workflows within the e-Builder system) by the City and the Contractor will be jointly owned.
- 3.7. Contractor is responsible for managing, tracking, and documenting the Services to comply with the requirements of this Agreement. The City's acceptance via automated system notifications or audit logs extends only to the face value of the submitted documentation and does not constitute a validation of the Contractor's submitted information.
- 3.8. At the City's sole discretion, project documents may be processed and distributed digitally over the internet or may be required to be presented in hard copy format.
- 3.9. While regular email may still be used for communication, when requested by the City, e-Builder shall be utilized as much as possible in connection with all document and information management required in the performance of projects where City has directed the use of e-Builder. Contractor shall be responsible for scanning or otherwise converting to electronic format all project submittals and Contractor correspondence, drawings, sketches, etc., and uploading them to the e-Builder website and shall be responsible for the validity of the information placed in e-Builder. The Contractor shall utilize the existing forms and processes in e-Builder to the maximum extent possible. If a required form does not exist in e-Builder, the Contractor shall include a form of its own or one provided by the City (if available) as an attachment to a submittal or process. Documents and information to be submitted electronically include, but are not limited to:
 - 3.9.1. Correspondence
 - 3.9.2. Meeting minutes
 - 3.9.3. Product data, reports, certifications, etc. must be submitted in PDF. (If a sample can be scanned, it is requested that a scanned PDF copy be submitted with the sample.
 - 3.9.4. Requests for Information (RFI's)
 - 3.9.5. Submittals and shop drawings
 - 3.9.6. Change order requests and documentation, including record copies of change orders, proposals, and modifications.
 - 3.9.7. Pay applications
 - 3.9.8. "Official" correspondence (such as letters) including informal correspondence, such as email.
 - 3.9.9. Pre-Task Plans (PTPs)

- 3.9.10. Daily construction reports and other daily reports including Contractor Quality Control (CQC) Reports
- 3.9.11. All official reports, such as commissioning reports
- 3.9.12. Notices and claims
- 3.9.13. Operations and maintenance manuals
- 3.9.14. All close-out documents, and
- 3.9.15. All testing results
- 3.10. Archive Copies: When requested by City, Contractor shall keep an archive copy of all digital data created by Contractor, or submitted to Contractor via e-mail, or resident on the e-Builder for the duration of the Project. Such data shall be available to City, and authorities with the jurisdiction (including funding agencies or representatives) on demand.
- 3.11. Should the City replace e-Builder with a different project management tool, Contractor, and subcontractors shall be required to utilize the new project management tool selected by the City.
- 4. SVP Responsibilities: To assist Contractor in performing the Services, SVP shall provide the following:
 - 4.1. Copies of all relevant existing standards, design guidelines, system planning guidelines, specifications and drawings required,
 - 4.2. Full access to any and all existing plans and records relevant to the performance of the contract.
 - 4.3. Access to the ESRI GIS database that includes electric infrastructure, land use, AML system configuration, and related information.
 - 4.4. Available distribution system data for analysis such as distribution feeder reads, transmission line reads, and substation banks loading during the past peak load periods.
 - 4.5. Complete transmission system database in GE PSLF, DEW, and Aspen.
 - 4.6. Available system inspection and maintenance information.
 - 4.7. Past system evaluations and annual system reports.
 - 4.8. System load forecast and Capital Improvement Plans.
 - 4.9. Latest Integrated Resource Plan.
 - 4.10. Operating system data as available from SCADA (There presently is no SCADA data available on the distribution system beyond the substation boundary walls).
 - 4.11. Incremental generation and purchased power costs.
 - 4.12. Current electric rates and Rules and Regulations

AMENDMENT NO. 2
AGREEMENT FOR DESIGN PROFESSIONAL SERVICES
BETWEEN THE
CITY OF SANTA CLARA, CALIFORNIA
AND ELECTRICAL CONSULTANTS, INC.
EXHIBIT B – COMPENSATION AND SCHEDULE OF FEES
AMENDED SEPTEMBER 1, 2023

1. Compensation and Cost Estimates:

- 1.1. This is a time and materials contract with a total not-to-exceed amount specified in Section 6 of the Agreement. The maximum compensation specified in Section 6 includes all services provided under this Agreement as Amended including those services provided in advance of this Amendment.
- 1.2. Cost Estimates: Detail tasks and cost are found in Exhibit B-1 COST ESTIMATE BY ACTIVITY.
 - 1.2.1. In the event that Contractor is requested to perform additional work not included in the scope of this Agreement or if a task exceeds the Budget outlined in Exhibit B-1, Contractor shall submit a proposal for such additional work or request for additional funds.
 - 1.2.2. If remaining contingency funds are available in the Agreement to complete the project quoted, Contractor may perform such additional work upon written City may issue a purchase order or change to purchase order to authorize such work.
 - 1.2.3. If insufficient contingency funds are available to complete proposed work, an Amendment to this Agreement shall be executed in advance of starting work. No products or services that will commit or authorize funds in excess of the contingency funds outlined in will be provided unless both Parties execute an Amendment to this Agreement.
- 1.3. Subject to written approval of the City, Contractor may transition costs between categories within each cost estimate but only to the extent that these transitions leave sufficient funding to complete the project identified in each Task.

2. Rates

- 2.1. Rates. Contractor shall invoice all Services at the rates listed in Exhibit B-2 attached and incorporated by reference .
- 2.2. Services performed prior to this Amendment shall be invoiced at the rates in place at the time of the service.

3. Reimbursable Expenses. Contractor may pass through costs set forth in Exhibit B-3. Expenses shall be reimbursable only to the extent that (1) Contractor submits sufficient documentation to City that the expenses were directly incurred in providing

the required Services, (2) Contractor demonstrates that such expenses aren't included in the hourly rate where applicable, (3) such expenses were approved in advance by City, (4) Contractor submits receipts, invoices, or other supporting documentation demonstrating that such reimbursable costs were incurred.

Reimbursable Expense Schedule	Mark Up
The cost of mailing, shipping and/or delivery of any documents or materials.	No Markup
The cost of photographing, printing, reproducing and/or copying any documents or materials.	No Markup
Charges for outside services (including subcontractor fees, equipment, materials, and facilities not furnished directly by Contractor).	Not to exceed 10%
Other reimbursable expenses with prior written approval from the City	No Markup
Allowable mileage will be charged at the prevailing IRS rate per mile.	No Markup
Unless approved in writing (e-mail acceptable) in advance, meals, lodging, and related per diem shall not exceed the rates outlined by United States General Services Administration (GSA). https://www.gsa.gov/travel-resources . Airfare or rental car, where applicable shall be at economy rates.	No Markup

4. Invoicing and Payments

- 4.1. Contractor will invoice City on a monthly basis for Services provided by Contractor during the preceding month on an invoice and in a format approved by City and subject to verification and approval by City.
- 4.2. All monthly invoices shall include:
 - 4.2.1. PO number;
 - 4.2.2. Itemization of the authorized expenses incurred, if any, with a detail listing the cost and source of such expenses and when they were incurred in a format that will permit City to verify rates are the same as those authorized in the Agreement; and
 - 4.2.3. Amount paid to date and amount remaining in the Agreement and Purchase Order.
- 4.3. Recalculation. The City may recalculate and pay invoices based on the rates established in this Agreement.
- 4.4. Certified Payroll. When applicable, Contractor must submit all necessary certified payrolls through LCP Tracker in advance of its request for payment. These submittals shall comply with the requirements set forth in Exhibit D and are subject to verification by the City.
- 4.5. If there are no discrepancies or deficiencies in the submitted invoice and Contractor has submitted all Certified Payroll (where required), City shall process the invoice for payment within 30 days.

EXHIBIT B-1 TASKS ASSOCIATED NOT-TO-EXCEED AMOUNT
ECI COST ESTIMATE FOR SYSTEM EXPANSION PLAN ADDITIONAL TASKS

Tasks			Subconsultants		Mark Ups	ODCs	Original	Amendment 2	New Total
Task #	STATUS AT TIME OF AMENDMENT NO. 2 Percent Complete	TASK DESCRIPTION	VPF Transformer Consulting	Power World Corporation	[10%] Sub Mark Up	Other Direct Costs			Total Fee
1.2.1	100%	Provide a detailed 3-year development plan of SVP's electric system expansion					\$ 173,683		\$ 173,683
1.2.2	10%	Provide the basis for updating the Load Development Fee					\$ 17,893		\$ 17,893
1.2.3	50%	Provide a high level 20-year development plan of SVP's electric system expansion					\$ 121,773		\$ 121,773
1.2.4	100%	Determine the ultimate need, capacity, configuration, and method of service, for proposed new substations					\$ 28,839		\$ 28,839
1.2.5	100%	Assess SVP's submission to the CAISO's Transmission Planning Process (TPP)					\$ 25,405		\$ 25,405
1.2.6	100%	Assess SVP's CEC load forecast submittals					\$ 17,029		\$ 17,029
1.2.7	100%	Assess the impact of increased future distributed generation and load					\$ 30,965		\$ 30,965
1.2.8	100%	Assess the condition of the electric system and recommend maintenance and capital replacements					\$ 26,981		\$ 26,981
1.2.9	100%	Review current system, substation, and feeder load projections for reasonableness					\$ 18,385		\$ 18,385
1.2.10	100%	Assess system reliability and provide cost/benefit analysis					\$ 18,413		\$ 18,413
1.2.11	15%	Assess system losses and provide cost/benefit analysis					\$ 11,581		\$ 11,581
1.2.12	100%	Assess the future reactive power requirements/need for power factor improvement					\$ 17,309		\$ 17,309
1.2.13	50%	A report on each of the standards and guidelines listed and include an assessment of their adequacy					\$ 79,439		\$ 79,439
1.2.14	30%	Identify the opportunities to utilize the enabling technology resulting from SVP's AMI deployment					\$ 28,217		\$ 28,217
1.2.15	10%	Assess the current emergency response plans, system restoration capabilities, energy control center					\$ 59,613		\$ 59,613
1.2.16	100%	Review current engineering, operations and electric system key performance indicators					\$ 22,053		\$ 22,053
1.2.17	0%	Assess the adequacy of existing vegetation management programs and standards					\$ 12,509		\$ 12,509
1.2.18	100%	Associated Engineering Services					\$ 95,913		\$ 95,913
TASK 019 Transformer Specification Review									
1.2.19	50%	NRS/KRS/SRS Transformer Specification Review by SubConsultant, Mr. Pierre Feghali, PE	\$ 28,000		\$ 2,800			\$ 30,800	\$ 30,800
TASK 020 TPP 23/24 Study									
1.2.20.1	100%	Load Flow analysis						\$ 64,575	
1.2.20.2	100%	Report Preparation						\$ 23,260	
1.2.20.3	100%	Weekly Meetings						\$ 22,170	
									\$ 110,005
TASK 021 TPP 24/25 Study									
1.2.21.1	50%	Load Flow analysis						\$ 64,575	
1.2.21.2	0%	Report Preparation						\$ 23,260	
1.2.21.3	50%	Weekly Meetings						\$ 22,170	
									\$ 110,005
TASK 022 DOE Smart Wires									
1.2.22	30%	Technical and PM Support for DOE Application and subsequent follow up						\$ 39,996	\$ 39,996
TASK 023 GMD PowerWorld Support									
1.2.23	0%	Evaluate Potential Impact of Geomagnetic Disturbances on SVP Power System		\$ 28,000	\$ 2,800			\$ 30,800	
1.2.23	0%	Modeling support to PowerWorld Corporation						\$ 42,012	
									\$ 72,812
TASK 024 Load Growth Scenarios									
1.2.24	0%	Load Flow analysis for various load growth sensitivities						\$ 139,988	\$ 139,988
TASK 025 2023 Miscellaneous Engineering Services									
1.2.25	0%	Engineering Support for remaining Studies task items						\$ 118,821	\$ 118,821
1.2.25		Contingency						\$ 125	\$ 125
TASK SVP-031 City Place Grounding Study									
1.2.31	75%	CDEGS & Ampacity analysis, Thermal and Electrical Resistivity Reports					\$ 44,000	\$ 27,448	\$ 71,448
Total							\$ 850,000	\$ 650,000	1,500,000

TABLE B-2 HOURLY RATES

Category/Position	Hourly Rate Effective October 1, 2020 Through April 30, 2023	Hourly Rate Effective May 1, 2023
Engineering/Management		
Senior Project Manager II	\$251	\$248
Senior Project Manager I	\$208	\$210
Project Manager II	\$185	\$188
Project Manager I	\$165	\$169
Senior Engineer II	\$209	\$211
Senior Engineer I	\$178	\$181
Senior Project Supervisor	\$174	\$175
Project Supervisor	\$131	\$135
Project Engineer II	\$151	\$154
Project Engineer I	\$143	\$145
Associate Engineer II	\$147	\$149
Associate Engineer I	\$141	\$143
Design Engineer III	\$124	\$127
Design Engineer II	\$116	\$119
Design Engineer I	\$109	\$110
Senior Designer II	\$155	\$152
Senior Designer I	\$139	\$141
Designer III	\$121	\$124
Designer II	\$107	\$109
Designer I	\$90	\$92
Program Management/Support Staff		
Project Controls Coordinator	\$190	\$195
Project Controls Specialist III	\$148	\$149
Project Controls Specialist II	\$115	\$119
Project Controls Specialist I	\$98	\$101
Senior Drafter II	\$107	\$108
Senior Drafter I	\$103	\$106
Drafter III	\$93	\$95
Drafter II	\$90	\$92
Drafter I	\$79	\$82
Administrative Executive	\$122	\$122
Administrative Assistant	\$82	\$74
Survey/Real Estate		
Senior Surveyor	\$158	\$162

TABLE B-2 HOURLY RATES

Category/Position	Hourly Rate Effective October 1, 2020 Through April 30, 2023	Hourly Rate Effective May 1, 2023
Surveyor II	\$129	\$133
Surveyor I	\$110	\$109
Survey Technician II	\$90	\$92
Survey Technician I	\$70	\$69
Senior Real Estate Specialist	\$152	\$153
Real Estate Specialist II	\$132	\$130
Real Estate Specialist I	\$89	\$88
Construction/Field Testing		
Senior P&C Technician	\$209	\$211
P&C Technician	\$145	\$146
Construction Project Manager	\$206	\$201
Field Construction Manager	\$195	\$196
Technician III/Inspector III	\$144	\$145
Technician II/Inspector II	\$123	\$126
Technician I/Inspector I	\$81	\$84
Safety Specialist	\$143	\$145
Corporate Project Management/Technical Oversight		
Principal	\$263	\$252
Director/PhD	\$263	\$252

EXHIBIT B-3
PASS THROUGH COSTS

Type	Costs Effective Oct. 1, 2020 through April 30, 2023	Costs Effective May 1, 2023
Project Expenses:		
Airline & Charter Aircraft	Actual Cost	Actual Cost
Rental Vehicles	Actual Cost	Actual Cost
Standard & Four-Wheel Drive	Federal/Allowable Rate	Federal/Allowable Rate
All Terrain Vehicles	\$10/hour	\$10/hour
Meals	Actual Cost	Actual Cost
Lodging	Actual Cost	Actual Cost
Parking	Actual Cost	Actual Cost
Long Distance & Telephone Charges	Actual Cost	Actual Cost
CADD Software/Plotting:		
AutoCAD Drafting Equipment	\$8.00/hour	\$9.00/hour
Microstation Drafting Equipment	\$8.00/hour	\$9.00/hour
HP Design Ject Monochrome Plots	\$5.00 each	\$5.00 each
HP Design Jet Color Plots	\$10.00 each	\$10.00 each
LD3 Modeling	\$8.00/hour	\$8.00/hour
Airline & Charter Aircraft		
Prints and Copies:		
Arc Flash Labels	\$6.00 each	\$6.00 each
Large Format Copies		
C, D Size	\$2.35 each	\$2.35 each
E Size	\$2.60 each	\$2.60 each
F Size	\$2.75 each	\$2.75 each
Larger Sizes	\$.25/sq. ft.	\$.25/sq. ft.
Engineering Software:		
Radial Voltage Drop-SynerGEE & Milsoft	\$30.00/hour	\$30.00/hour
Load Flow/Stability (PSLF/PSSE)	\$40.00/hour	\$40.00/hour
ASPEN	\$30.00/hour	\$30.00/hour
STRUDL/Structural Software	\$40.00/hour	\$40.00/hour
GIS Mapping Software	\$ 8.00/hour	\$ 8.00/hour
Visual Analysis & STAAD Pro	\$20.00/hour	\$20.00/hour
CDEGS (Grounding)	\$50.00/hour	\$50.00/hour
SKM	\$25.00/hour	\$25.00/hour
TLCADD & PLS-CADD	\$10.00/hour	\$10.00/hour
CYMCAP	\$40.00/hour	\$40.00/hour

EXHIBIT B-3
PASS THROUGH COSTS

ETAP	\$20.00/hour	\$20.00/hour
PSCAD/EMT	\$40.00/hour	\$40.00/hour
PTI - Power System Analysis	\$40.00/hour	\$40.00/hour
T-Flash	\$40.00/hour	\$40.00/hour
Survey Equipment/Software:		
Cyclone Software	\$30.00/hour	\$30.00/hour
Terra Solid Laser Imaging	\$20.00/hour	\$20.00/hour
Theodolite, Total Station	\$11.00/hour	\$11.00/hour
Robotic Total Station	\$15.00/hour	\$15.00/hour
Survey Grade GPS, Base Station & Rovers	\$30.00/hour	\$30.00/hour
Staking Supplies	\$10.00/line-mile	\$10.00/line-mile
Testing Equipment:		
5 kV Megger	\$60.00/day \$200/week	\$60.00/day \$200/week
Phase Angle Meter	\$50/day, \$200/week	\$50/day, \$200/week
Automated CT Test Set	\$125/day, \$420/week	\$125/day, \$420/week
Transformer Turns Ratio Test Set	\$ 75/day, \$300/week	\$ 75/day, \$300/week
Earth Resistivity Test Set	\$100/day, \$400/week	\$100/day, \$400/week
Power Quality Analyzer	\$ 75/day, \$150/week	\$ 75/day, \$150/week
Hi_Potential Test Set	\$120/day, \$300/week	\$120/day, \$300/week
VLF AC Hi-Potential Test Set	\$500/day, \$2,000/week	\$500/day, \$2,000/week
Doble F6150 Relay Test Set	\$375/day, \$1,500/week	\$375/day, \$1,500/week
Doble M4000 Power Factor Test Set	\$500/day, \$2,000/week	\$500/day, \$2,000/week
Doble MS400 Seep Frequency	\$1,000/day	\$1,000/day
Dilo SF-6 Moisture Analyzer	\$150/day, \$600/week	\$150/day, \$600/week
Dilo SF-6 Breaker Analyzer	\$450/day	\$450/day
CT-7000 Breaker Motion Analyzer	\$125/day, \$350/week	\$125/day, \$350/week
Ductor Low Resistivity & High Current	\$75/day, \$300/week	\$75/day, \$300/week
FLIR Infrared Camera	\$500/day, \$2,000/week	\$500/day, \$2,000/week
CGPR (ground penetrating radar	\$1,000/day	\$1,000/day
HD 3-D Laser Scanner	\$600/day	\$600/day
Dranetz 800 Analyzer	\$500/day	\$500/day
Fluke 435 Meter	\$1,000/month	\$1,000/month
Other equipment (Load Banks, Meter Standards, etc.)	Job-Quote	Job-Quote