

**COLORADO RIVER COMMISSION OF NEVADA
AGENDA ITEM A
FOR MEETING OF NOVEMBER 12, 2024**

SUBJECT: Roll Call / Conformance to Open Meeting Law.
RELATED TO AGENDA ITEM: None.
RECOMMENDATION OR RECOMMENDED MOTION: None.
FISCAL IMPACT: None.

STAFF COMMENTS AND BACKGROUND:

Announcement of actions taken to conform to the Open Meeting Law will be reported at the meeting.

**COLORADO RIVER COMMISSION OF NEVADA
AGENDA ITEM B
FOR MEETING OF NOVEMBER 12, 2024**

SUBJECT: Comments from the public. Members of the public are invited to comment on items on the meeting agenda. (No action may be taken on a matter raised during public comment until the matter itself has been specifically included on an agenda as an item for possible action).
RELATED TO AGENDA ITEM: None.
RECOMMENDATION OR RECOMMENDED MOTION: None.
FISCAL IMPACT: None.

**COLORADO RIVER COMMISSION OF NEVADA
AGENDA ITEM C
FOR MEETING OF NOVEMBER 12, 2024**

SUBJECT: <i>For Possible Action:</i> Approval of minutes of the September 10, 2024, meeting.
RELATED TO AGENDA ITEM: None.
RECOMMENDATION OR RECOMMENDED MOTION: None.
FISCAL IMPACT: None.

STAFF COMMENTS AND BACKGROUND:

The minutes of the September 10, 2024, meeting is enclosed for your review.

The Colorado River Commission of Nevada (Commission) meeting was held at 1:30 p.m. on Tuesday, September 10, 2024, at the Clark County Government Center, Commission Chambers, 500 South Grand Central Parkway, Las Vegas, NV 89155.

COMMISSIONERS IN ATTENDANCE

Chairwoman	Puoy K. Premsrirut
Vice Chairwoman	Kara J. Kelley
Commissioner	Marilyn Kirkpatrick
Commissioner	Allen J. Puliz
Commissioner	Dan H. Stewart
Commissioner	Steve Walton

COMMISSIONERS PRESENT VIA TELECONFERENCE

Commissioner	Cody Winterton
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DEPUTY ATTORNEY(S) GENERAL

Special Counsel, Attorney General	Michelle D. Briggs
Special Counsel, Attorney General	David W. Newton

COMMISSION STAFF IN ATTENDANCE

Executive Director	Eric Witkoski
Senior Assistant Director	Sara Price
Chief of Finance and Administration	Douglas N. Beatty
Assistant Director, Energy Information Systems	Kaleb Hall
Assistant Director, Engineering and Operations	Shae Pelkowski
Assistant Director, Hydropower	Gail Bates
Assistant Director, Natural Resources	Warren Turkett, Ph.D.
Hydropower Program Manager	Craig Pyper
Chief Accountant	Gail L. Benton
Senior Energy Accountant	Hyelim Hong
Senior Energy Accountant	Andrew Weart
Natural Resource Specialist	Danielle E. Greene
System Coordinator	Chris Smith
IT Application Specialist	John Sagmani
Executive Assistant Manager	Gina L. Goodman
Office Manager	Noah Fischel
Administrative Assistant III	Tamisha Randolph
Administrative Assistant II	Joshua Cleveland

OTHERS PRESENT: REPRESENTING

City of North Las Vegas
Kupfersmid & Company LLC
Legislative Counsel Bureau
Overton Power District No. 5
Self
Southern Nevada Water District
Water Fairness Coalition Inc.

Joemel Llamado
Jason Kupfersmid
Justin Luna
Johnathan Denninghoff
Shawn Mollus
Annalise Porter
Laura McSwain

DRAFT

COLORADO RIVER COMMISSION OF NEVADA

MEETING OF

SEPTEMBER 10, 2024

INDEX

<u>Agenda Item</u>	<u>Subject</u>	<u>Page No.</u>
A.	Roll Call / Conformance to Open Meeting Law.....	1
B.	Comments from the public. Members of the public are invited to comment on items on the meeting agenda. (No action may be taken on a matter raised during public comment until the matter itself has been specifically included on an agenda as an item for possible action)	1
C.	For Possible Action: Approval of minutes of the August 13,2024, meeting.....	1
D.	For Possible Action: Consideration of and possible action to approve Contract No. 24-DSR-13350 between Colorado River Commission of Nevada and United States, Department of Energy, Western Area Power Administration (WAPA) for Firm Transmission Service Arrangements for the period of October 1, 2024, to September 30, 2057.	2
E.	<i>For Possible Action:</i> Consideration of and possible action to approve Amendment No. 1 to Contract No. P14-SLCESC between the Colorado River Commission of Nevada and the City of Boulder City, Nevada for the Sale of Electric Power from the Salt Lake City Area Integrated Projects from October 1, 2024, through September 30, 2057.	2
F.	<i>For Possible Action:</i> Consideration of and possible action to approve Amendment No. 1 to Contract No. P06-SLCESC between the Colorado River Commission of Nevada and Overton Power District No. 5, for the Sale of Electric Power from the Salt Lake City Area Integrated Projects from October 1, 2024, through September 30, 2057.	2
G.	<i>For Possible Action:</i> Consideration of and possible action to approve Amendment No. 1 to Contract No. P08-SLCESC between the Colorado River Commission of Nevada and Valley Electric Association, Inc., for the Sale of Electric Power	

	from the Salt Lake City Area Integrated Projects from October 1, 2024, through September 30, 2057.....	2
H.	<i>For Possible Action:</i> Consideration of and possible action to approve a contract between the Colorado River Commission of Nevada and Kupfersmid & Company LLC for specialized utility accounting services in an amount not to exceed \$60,000 for a two-year term	3
I.	<i>For Possible Action:</i> Consideration of and possible action to appoint Eric Witkoski as a Board Member from the Colorado River Commission of Nevada to serve on the Silver State Energy Association (SSEA) Board of Directors and approve Eric Witkoski to serve, if selected by the SSEA board, as its chairman; or alternatively appoint another person to fulfill the role.....	3
J.	<i>For Information Only:</i> Update on budget submitted for the FY 2026 and FY 2027 Legislative session and update on audit by Legislative Auditor for period of January 1, 2021, through December 31, 2022.....	4
K.	<i>For Information Only:</i> Update on pending legal matters, including Federal Energy Regulatory Commission, Public Utilities Commission of Nevada filings and Federal Legislation	4
L.	<i>For Information Only:</i> Status update from Staff on the hydrological conditions, drought, and climate of the Colorado River Basin, Nevada’s consumptive use of Colorado River water, basin negotiations, impacts on hydropower generation, electrical construction activities and other developments on the Colorado River.....	5
M.	Comments from the public. Members of the public are invited to comment on items on the meeting agenda or on items not contained therein. No action may be taken on a matter raised during public comment until the matter itself has been specifically included on an agenda as an item for possible action.....	6
N.	Comments and questions from the Commission members.....	6
O.	Selection of the next possible meeting date	6
P.	Adjournment.....	6

The Colorado River Commission of Nevada (Commission) meeting was called to order by Chairwoman Premsrirut at 1:30 p.m., followed by the pledge of allegiance.

A. Conformance to Open Meeting Law.

Executive Director, Eric Witkoski, confirmed that the meeting was posted in compliance with the Open Meeting Law.

B. Comments from the public. Members of the public are invited to comment on items on the meeting agenda or on items not contained therein. No action may be taken on a matter raised during public comment until the matter itself has been specifically included on an agenda as an item for possible action.

Chairwoman Premsrirut asked if there were any comments from the public. There were none.

C. For Possible Action: Approval of the minutes of the August 13, 2024, meeting.

Commissioner Puliz moved for approval the minutes of the August 13, 2024, meeting. The motion was seconded by Vice Chairwoman Kelley and approved by those present.

D. For Possible Action: Consideration of and possible action to approve Contract No. 24-DSR-13350 between Colorado River Commission of Nevada and United States, Department of Energy, Western Area Power Administration (WAPA) for Firm Transmission Service Arrangements for the period of October 1, 2024, to September 30, 2057.

Commissioner Kirkpatrick was present for this agenda item.

In Agenda Item D, Mr. Witkoski introduced Contract No. 24-DSR-13350 for approval. The contract is between the Colorado River Commission of Nevada (Commission) and the United States Department of Energy, Western Area Power Administration (WAPA), for firm transmission service arrangements from October 1, 2024, to September 30, 2057. Although items E, F, and G are related, he clarified that Item D would be discussed separately.

Ms. Bates provided the background. She explained that Commission has a small allocation of hydropower from the Salt Lake City Area Integrated Projects, with the delivery point at Pinnacle Peak Substation in Arizona, while Commission's customers are in Southern Nevada. Therefore, a transmission agreement with WAPA is necessary to deliver power from Pinnacle Peak to the Mead Substation near Boulder City. Under the current contract, the power and transmission services are bundled, but in 2019, Commission agreed to separate contracts for resource and transmission, as preferred by WAPA.

Ms. Bates noted that the new transmission contract with WAPA's Desert Southwest Region will maintain the same rate Commission currently pays under the Parker Davis

rate. She requested that the Commission authorize Mr. Witkoski to enter into this new contract.

Commissioner Puliz questioned the length of the 32-year contract, to which Ms. Bates explained that the renewal process began earlier, making it effectively a 40-year contract that will begin in October 2024.

After further discussion, a motion to approve was made by Commissioner Stewart and seconded by Commissioner Kirkpatrick. The motion was approved unanimously.

E. *For Possible Action:* Consideration of and possible action to approve Amendment No. 1 to Contract No. P14-SLCESC between the Colorado River Commission of Nevada and the City of Boulder City, Nevada for the Sale of Electric Power from the Salt Lake City Area Integrated Projects from October 1, 2024, through September 30, 2057.

F. *For Possible Action:* Consideration of and possible action to approve Amendment No. 1 to Contract No. P06-SLCESC between the Colorado River Commission of Nevada and Overton Power District No. 5, for the Sale of Electric Power from the Salt Lake City Area Integrated Projects from October 1, 2024, through September 30, 2057.

G. *For Possible Action:* Consideration of and possible action to approve Amendment No. 1 to Contract No. P08-SLCESC between the Colorado River Commission of Nevada and Valley Electric Association, Inc., for the Sale of Electric Power from the Salt Lake City Area Integrated Projects from October 1, 2024, through September 30, 2057.

In Agenda Items E, F, and G, Mr. Witkoski explained that these items are related to Item D and share similar contractual terms. As such, they would be discussed together. Each item involved amendments to contracts between the Colorado River Commission of Nevada (Commission) and various entities for the sale of electric power from the Salt Lake City Area Integrated Projects from October 1, 2024, through September 30, 2057. The entities involved were the City of Boulder City (Item E), Overton Power District No. 5 (Item F), and Valley Electric Association, Inc. (Item G).

Ms. Bates provided the background. In 2019, when the Commission renewed the federal Salt Lake City Area Integrated Projects (SLCAIP) contract, parallel agreements were negotiated with the three contractors: Boulder City, Overton Power District, and Valley Electric Association. These agreements initially required the customers to enter a transmission contract with Commission to pass through the federal charges outlined in the contracts. Upon review, it was determined that separate transmission agreements were unnecessary, and Commission could simply pass through the charges under the existing contracts, as they do currently.

To address this issue Staff proposed a simple amendment to the SLCAIP contracts. This amendment removes the requirement for a separate transmission agreement and clarifies the ability to pass through the charges. Ms. Bates noted that the customers had verbally agreed to the amendment, but formal approval from their respective boards was still

pending. She requested that the Commission conditionally approve the amendments, subject to the customers' formal approval.

After some clarification from Ms. Bates and Mr. Witkoski regarding the conditional approval process, Commissioner Walton moved to approve the amendments, with the condition that the respective councils and boards also approve. The motion was seconded by Commissioner Kirkpatrick and approved unanimously.

H. *For Possible Action: Consideration of and possible action to approve a contract between the Colorado River Commission of Nevada and Kupfersmid & Company LLC for specialized utility accounting services in an amount not to exceed \$60,000 for a two-year term.*

In Agenda Item H, Mr. Witkoski introduced the proposed contract between the Colorado River Commission of Nevada (Commission) and Kupfersmid & Company LLC for specialized utility accounting services, not to exceed \$60,000 for a two-year term. He mentioned that the need for these services had been under consideration for some time and asked Ms. Bates to provide further details.

Ms. Bates explained that the Commission's billing process is highly detailed, with each federal charge broken down for customers. The Commission has been considering ways to simplify the billing structure while ensuring it meets customers' needs. The contract would provide expertise in evaluating whether alternative billing structures could work, considering various implications like cash flow and customer preferences.

Commissioner Kirkpatrick expressed concerns about aligning any changes with audit requirements, referencing past audits where differences in billing methods caused issues. She suggested reaching out to the Commission's auditors to ensure alignment and avoid future problems. Mr. Beatty, Commission's Chief of Finance & Administration, agreed with this suggestion, noting that their current auditor, Moss Adams, specializes in utility audits. He committed to involve them in the process.

Mr. Witkoski affirmed that any changes would be vetted with the auditors, customers, and stakeholders before implementation. Ms. Bates clarified that the consultant would only improve the billing system and the Commission would continue managing its own billing.

Following this discussion, Commissioner Puliz moved to approve the contract, seconded by Commissioner Kelley. The motion was approved unanimously.

I. *For Possible Action: Consideration of and possible action to appoint Eric Witkoski as a Board Member from the Colorado River Commission of Nevada to serve on the Silver State Energy Association (SSEA) Board of Directors and approve Eric Witkoski to serve, if selected by the SSEA board, as its chairman; or alternatively appoint another person to fulfill the role.*

In Agenda Item I, Mr. Witkoski informed the Commission that discussions earlier in the day led to the decision to table the item. The item, which involved the appointment of Mr. Witkoski or another person as a Board Member from the Colorado River Commission of

Nevada to the Silver State Energy Association (SSEA) Board of Directors, as well as his potential selection as SSEA chairman, was deferred to a future meeting.

Chairwoman Premsrirut confirmed that the item was pulled from the agenda and would be revisited at the next meeting.

J. *For Information Only: Update on budget submitted for the FY 2026 and FY 2027 Legislative session and update on audit by Legislative Auditor for period of January 1, 2021, through December 31, 2022.*

In Agenda Item J, Mr. Witkoski introduced an informational update on the budget submitted for the fiscal years 2026 and 2027, as well as an audit conducted by the Legislative Auditor for the period of January 1, 2021, through December 31, 2022. He first invited Mr. Beatty to provide an update on the budget.

Mr. Beatty reported that the budget was submitted on time, including new positions and authorizations for ongoing projects. The process is now moving to the Governor's Finance Office for review, with feedback expected over the next few months. The Governor's final budget will be submitted during the legislative session.

Mr. Witkoski then provided an update on the Legislative Counsel Bureau (LCB) audit, which had just been made public. The audit raised concerns about water accounting personnel, which the Commission has already addressed by assigning responsibilities to Mr. Turkett and hiring additional staff. During the audit period, the Commission's power delivery group did not meet certain aspirational record keeping compliance goals due to challenges posed by the COVID-19 pandemic.

Chairwoman Premsrirut acknowledged the challenges posed by the pandemic and appreciated the explanation. Commissioner Kirkpatrick inquired about the audit process, questioning whether legislators had considered the operational context during the pandemic. Mr. Witkoski clarified that the Commission had filed a response to the audit highlighting the operational context.

Commissioner Kirkpatrick stressed the importance of maintaining a complete record of these explanations to avoid potential misunderstandings during future budget evaluations.

The discussion concluded without further questions or comments.

K. *For Information Only: Update on pending legal matters, including Federal Energy Regulatory Commission, Public Utilities Commission of Nevada filings and Federal Legislation*

In Agenda Item K, Mr. Witkoski provided an update on pending legal matters, focusing on federal legislation. He informed the Commission that there were no new updates on legal cases, but he provided details on the progress of the Hoover Dam Act. The Act passed through the House committee in May and June and was scheduled to be heard by the

Senate's Water and Power Subcommittee the following day. Mr. Witkoski expressed hope that the bill might be attached to an omnibus package by the end of the year.

There were no questions or comments from the Commission on this item.

L. *For Information Only:* Status update from Staff on the hydrological conditions, drought, and climate of the Colorado River Basin, Nevada's consumptive use of Colorado River water, basin negotiations, impacts on hydropower generation, electrical construction activities and other developments on the Colorado River.

In Agenda Item L, Mr. Witkoski introduced an update on the hydrological conditions, drought, and climate of the Colorado River Basin, as well as developments impacting Nevada's consumptive use of Colorado River water and hydropower generation. He invited Mr. Turkett to provide a detailed hydrology report.

Mr. Turkett began with an update on precipitation and temperature in the Upper Basin, noting that August saw 167% of average precipitation, bringing the cumulative total for the water year to 104% of average. Despite this, the runoff forecast remains at 8.1-million-acre feet, only 84% of the average, due to unusually high temperatures affecting runoff. However, the good precipitation provides better conditions for the upcoming water year, beginning in October 2024.

He continued with an overview of the August 24-month study results from the Bureau of Reclamation. Lake Powell's operating criteria will be in the mid-elevation release tier, with 7.48-million-acre feet of water to be released in 2025. Lake Mead's elevation is projected between 1075 and 1050 feet, resulting in a Tier 1 shortage. This situation mirrors the current year's operating criteria, with Nevada facing a 21,000-acre foot reduction.

Mr. Turkett also discussed the projections for Lake Powell and Lake Mead elevations, highlighting uncertainty due to future precipitation and temperature conditions. He noted that Nevada's consumptive use of Colorado River water through July was down 13% compared to the three-year average, thanks to ongoing conservation efforts.

Commissioners Walton and Puliz asked questions about the runoff statistics and whether evaporation losses, particularly in California, would be addressed in future water agreements. Mr. Turkett and Ms. Price, Senior Assistant Director, explained that evaporation is a significant issue and is under consideration in ongoing post-2026 negotiations regarding the Colorado River.

Ms. Price also provided an update on federal legislation related to the Multi-Species Conservation Program (MSCP), which would allow non-federal contributions to be placed in an interest-bearing account, benefiting environmental programs. This legislation will be heard alongside the Hoover Dam Act in the Senate.

The discussion concluded without further questions or comments.

M. *Comments from the public.* Members of the public are invited to comment on items on the meeting agenda or on items not contained therein. No action may be taken on a matter raised during public comment until the matter itself has been specifically included on the agenda as an item for possible action.

Chairwoman Premsrirut asked if there were any comments from any member of the public present in the Chamber or any member of the public participating remotely that wish to address the Commission. There were none.

N. **Comments and questions from the Commission members.**

Chairwoman Premsrirut asked if there were any comments or questions from the Commission members. There were none.

O. **Selection of the next possible meeting date .**

The next meeting is tentatively scheduled for 1:30 p.m. on October 8, 2024, at the Clark County Government Center, Commission Chambers, 500 South Grand Central Parkway, Las Vegas, Nevada 89155.

P. **Adjournment .**

The meeting was adjourned at 2:10 p.m.

Eric Witkoski, Executive Director

APPROVED:

Puoy K. Premsrirut, Chairwoman



Colorado River Commission of Nevada

Hydrology and River Updates

Warren Turkett

September 10, 2024

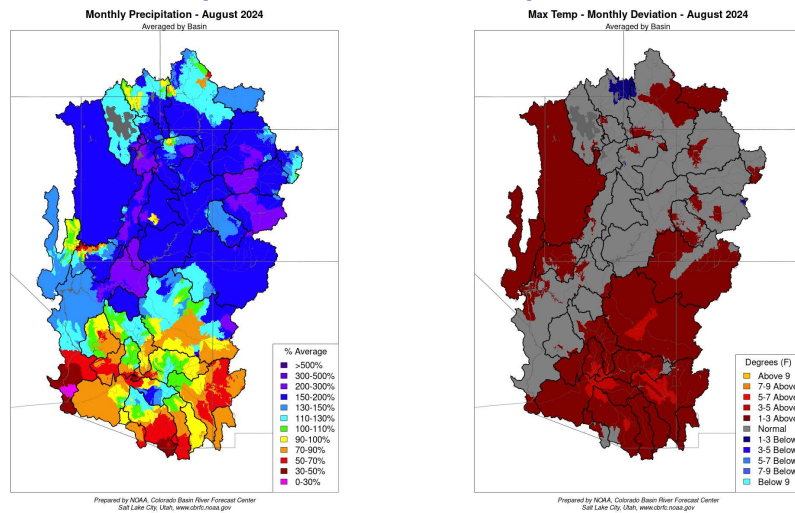


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Precipitation and Temperature



Lake Powell %Average Precipitation Water Year 2024

Area	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Water Year
UC-Powell	92	56	76	120	137	130	69	95	153	65	167	104

2

August 24 Month Study Results

- Reclamation released the results of the August 24 Month Study, which is used to determine the operating tiers for Lake Mead and Lake Powell for 2025.
- Lake Powell was projected to be in the "Mid-Elevation Release Tier" which results in a release on 7.48 million acre-feet in water year 2025.
- Lake Mead was projected to be in a "Level 1 Shortage", which is the same operations as our current year.

Lake Powell			Lake Mead		
Elevation (feet)	Operation According to the Interim Guidelines	Live Storage (maf)	Elevation (feet)	Operation According to the Interim Guidelines	Live Storage (maf)
3,700	Equalization Tier Equalize, avoid spills, or release 8.23 maf	23.31	1,220	Flood Control Surplus or Quantified Surplus Condition Deliver > 7.5 maf	26.18
3,636-3,666 (2008-2026)	Upper Elevation Balancing Tier Release 8.23 maf	14.65-18.36 (2008-2026)	1,200 (approx.)	Domestic Surplus or ICS Surplus Condition Deliver > 7.5 maf	23.14 (approx.)
3,575	Mid-Elevation Release Tier Release 7.48 maf If Lake Mead < 1,075 feet, balance contents with a min/max release of 7.0 and 9.0 maf	8.90	1,145	Normal or ICS Surplus Condition Deliver > 7.5 maf	16.18
3,568.99 ft Jan 1, 2025 Projection	Mid-Elevation Release Tier Release 7.48 maf If Lake Mead < 1,025 feet, release 8.23 maf		1,075	Shortage Condition Deliver 7.167 maf	1,062.32 ft Jan 1, 2025 Projection
3,525	Lower Elevation Balancing Tier Balance contents with a min/max release of 7.0 and 9.5 maf	5.55	1,050	Shortage Condition Deliver 7.083 maf	
3,500	Level 1 Shortage If any minimum probable Lake Powell elevation projection shows Lake Powell < 3,500 feet, begin planning to reduce releases to no less than 6.0 maf	4.22	1,025	Shortage Condition Deliver 7.0 maf	5.98
3,370	The Secretary reserves the right to operate Reclamation facilities to protect the Colorado River system if hydrologic conditions require such action as described in Sections 6 and 7(D) in the 2007 Interim Guidelines RCD	0	1,000	Shortage Condition Further measures may be undertaken	4.48
			895		0

<https://www.usbr.gov/newsroom/news-release/4934>

3

August 24 Month Study Results

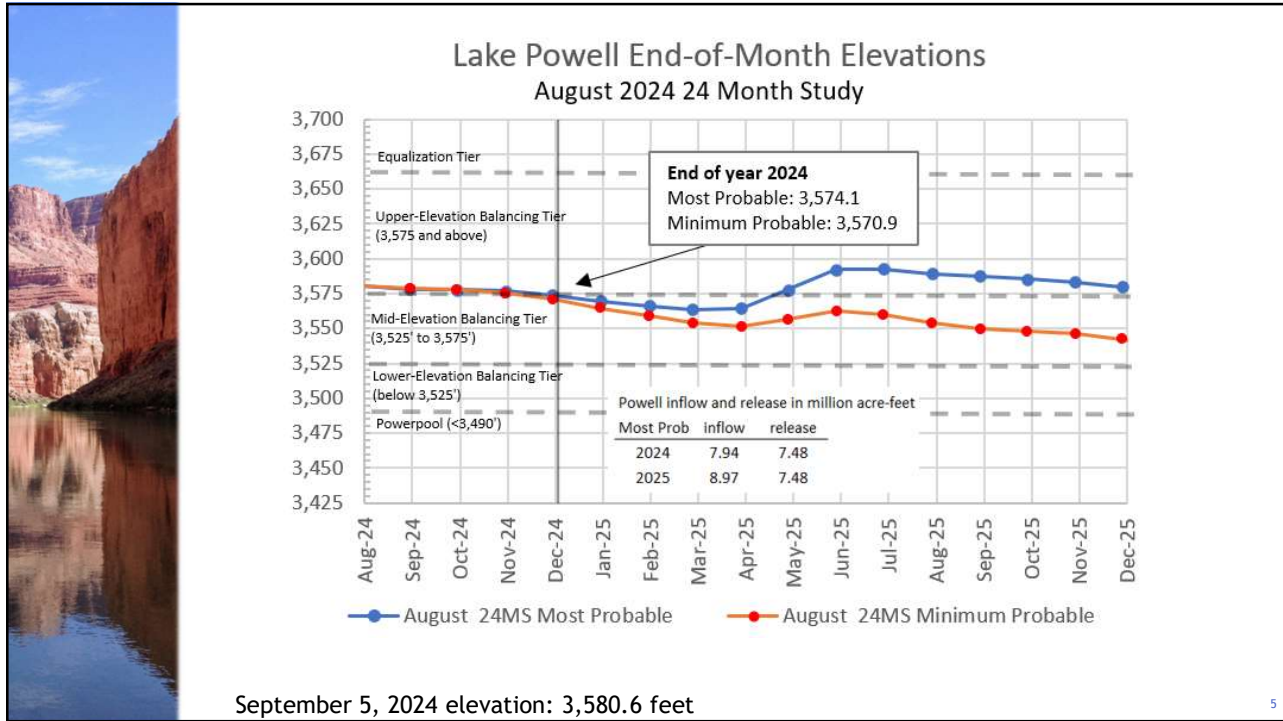
2007 Interim Guidelines, Minute 323, Lower Basin Drought Contingency Plan, and Binational Water Scarcity Contingency Plan Total Volumes (kaf)

Lake Mead Elevation (feet msl)	2007 Interim Guidelines Shortages			Minute 323 Delivery Reductions	Total Combined Reductions	DCP Water Savings Contributions				Binational Water Scarcity Contingency Plan Savings					Combined Volumes by Country US: (2007 Interim Guidelines Shortages + DCP Contributions) Mexico: (Minute 323 Delivery Reductions + Binational Water Scarcity Contingency Plan Savings)					Total Combined Volumes
	AZ	NV	Mexico			AZ	NV	CA	Mexico	AZ Total	NV Total	CA Total	Lower Basin States Total	Mexico Total	Lower Basin States + Mexico					
1,090 - 1,075	0	0	0	0	192	8	0	41	192	8	0	200	41	241						
1,075 - 1,050	320	13	50	383	192	8	0	30	512	21	0	533	80	613						
1,050 - 1,045	400	17	70	487	192	8	0	34	592	25	0	617	104	721						
1,045 - 1,040	400	17	70	487	240	10	200	76	640	27	200	867	146	1,013						
1,040 - 1,035	400	17	70	487	240	10	250	84	640	27	250	917	154	1,071						
1,035 - 1,030	400	17	70	487	240	10	300	92	640	27	300	967	162	1,129						
1,030 - 1,025	400	17	70	487	240	10	350	101	640	27	350	1,017	171	1,188						
<1,025	480	20	125	625	240	10	350	150	720	30	350	1,100	275	1,375						

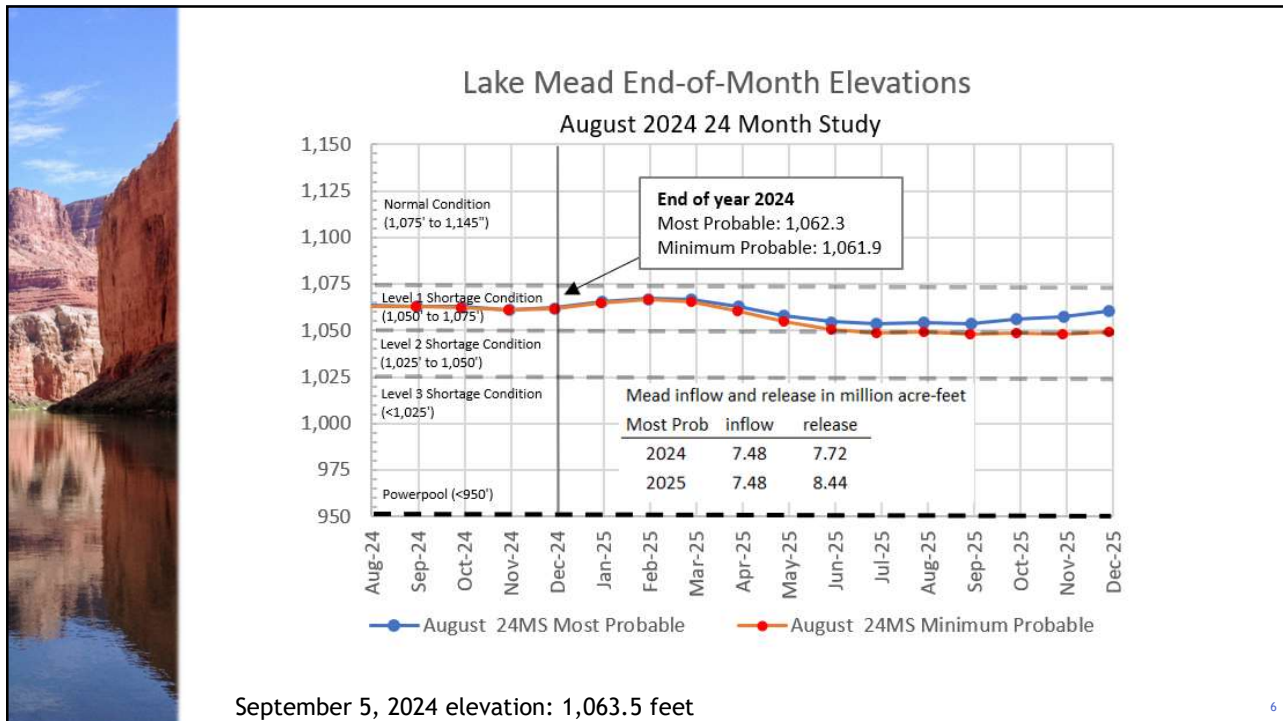
2025 Reductions + Contributions →

The Secretary of the Interior will take affirmative actions to implement programs designed to create or conserve 100,000 acre-ft per annum or more of Colorado River System water to contribute to conservation of water supplies in Lake Mead and other Colorado River reservoirs in the lower basin. All actions taken by the United States shall be subject to applicable law, including availability of appropriations.

4



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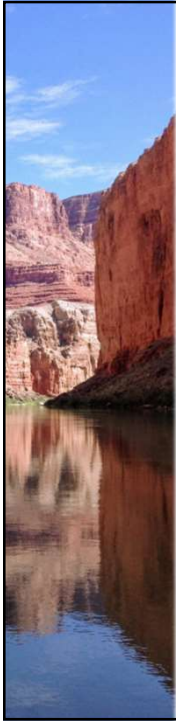
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Water Use In Southern Nevada

2024 January-July Southern Nevada Water Use¹

Acre-Feet

Nevada Annual Allocation	300,000
Drought Contingency Plan contribution	-8,000
Interim Guidelines Shortages	-13,000
Diversions	261,641
Return Flow Credits	144,409
Consumptive Use	117,232
¹ 2024 Consumptive use data is preliminary.	(13% decrease compared to 3-year average)



7

**COLORADO RIVER COMMISSION OF NEVADA
AGENDA ITEM D
FOR MEETING OF NOVEMBER 12, 2024**

SUBJECT: *For possible Action:* To approve Contract No. CRCGV-01 between successful bidder, Peak Substation Services, LLC, and the Colorado River Commission of Nevada, based on Bid Solicitation No. 69CRC-S2784 for Distribution Transformers for Southern Nevada Water Authority’s Garnet Valley Water System Project in the amount of \$1,588,470 and authorize a change order contingency amount not to exceed \$158,847.

RELATED TO AGENDA ITEM:

None.

RECOMMENDATION OR RECOMMENDED MOTION: Staff recommend the Commission approve the contract CRCGV-01 with Peak Substation and authorize the Executive Director to sign the contract on behalf of the Commission.

FISCAL IMPACT:

None.

STAFF COMMENTS AND BACKGROUND:

A. Background on Operations

Pursuant to NRS 538.161, the Colorado River Commission of Nevada (Commission) may execute contracts for the planning and development of any facilities for the generation or transmission of electricity for the greatest possible benefit to the state. Additionally, the Commission has a Facilities Development Agreement with the Southern Nevada Water Authority (SNWA) for the purpose of “creating a cooperative relationship to jointly develop, operate, maintain, use and replace a Power System” for SNWA and its members. SNWA has requested the Commission to assist in the design and procurement of the electrical infrastructure for the Garnet Valley Water System project.

B. Background of Bid/Procurement

On March 29, 2024, bid solicitation 69CRC-S2784 was posted in NVEPro. Bid solicitations were sent to 29 vendors registered with NVEPro. The deadline for bid proposals closed at 2:00 p.m. on May 23, 2024. Five quotes were received through NVEPro. The evaluation team reviewed the bids and selected the proposal from Peak Substation Services, LLC.

This Contract is to design, manufacture, assemble, test, ship, and provide all other ancillary services relating to the procurement of for two Distribution Transformers as specified in the contract. The Equipment will be purchased by the Commission pursuant to NRS 538.161 (2) and the Commission’s established Procedures for Purchasing Electrical Materials for the Power Delivery Project and State Administrative Manual (SAM) 0326.

C. Staff’s Recommendation

Staff recommend the Commission approve the contract with Peak Substation Services, LLC., and authorize the Executive Director to sign it on behalf of the Commission.

**COLORADO RIVER COMMISSION OF NEVADA
AGENDA ITEM D
FOR MEETING OF NOVEMBER 12, 2024**

**INSTRUCTIONS FOR COMPLETING THE
DISCLOSURE OF OWNERSHIP/PRINCIPALS FORM**

Purpose of the Form

The purpose of the Disclosure of Ownership/Principals Form is to gather information pertaining to the business entity for use by the Colorado River Commission of Nevada ("CRCNV") in determining whether Commissioners of the CRCNV should exclude themselves from voting on agenda items where they have, or may be perceived, as having a conflict of interest. This form will also assist in determining compliance with Nevada Revised Statute 281A.430, which, with some exceptions, prohibits public officers from bidding on or entering into contracts between a governmental agency and any business entity in which a public officer or employee has a significant pecuniary interest.

General Instructions

Completion and submission of this Form is a condition of approval or renewal of a contract or lease and/or release of monetary funding between the disclosing entity and the CRCNV. Failure to submit the requested information may result in a refusal by the CRCNV to enter into an agreement/contract and/or release monetary funding to such disclosing entity.

Detailed Instructions

All sections of the Disclosure of Ownership form must be completed. If not applicable, write in N/A.

Business Name (include d.b.a. if applicable) – Enter the legal name of the business entity and enter the "Doing Business As" (d.b.a.) name, if applicable.

Corporate/Business Address, Business Telephone, Business Fax and Email – Enter the street address, telephone and fax numbers, and email of the named business entity.

Local Business Address, Local Business Telephone, Local Business Fax, and Email – If business entity is out-of-state, but operates the business from a location in Nevada, enter the Nevada street address, telephone and fax numbers, point of contact and email of the local office. Please note that the local address must be an address from which the business is operating from that location. Please do not include a P.O. Box number, unless required by the U.S. Postal Service, or a business license hanging address.

Number of Nevada Residents employed by this firm.

List of Owners/Officers – Include the full name, title and percentage of ownership of each person who has ownership or financial interest in the business entity. If the business is a publicly-traded corporation or non-profit organization, list all Corporate Officers and Directors only.

For All Contracts – (Not required for publicly-traded corporations)

- 1) Indicate if any individual members, partners, owners or principals involved in the business entity are a CRCNV full-time employee(s), or appointed/elected official(s). If yes, the following paragraph applies.
In accordance with NRS 281A.430.1, a public officer or employee shall not bid on or enter into a contract between a government agency and any private business in which he has a significant financial interest, except as provided for in subsections 2, 3, and 4.
- 2) Indicate if any individual members, partners, owners or principals involved in the business entity have a second degree of consanguinity or affinity relation to a CRCNV full-time employee(s), or appointed/elected official(s) (reference form on Page 2 for definition). If YES, complete the Disclosure of Relationship Form.

A professional service is defined as a business entity that offers business/financial consulting, legal, physician, architect, engineer or other professional services.

Signature and Print Name – Requires signature of an authorized representative and the date signed.

Disclosure of Relationship Form – If any individual members, partners, owners or principals of the business entity is presently a CRCNV employee, public officer or official, or has a second degree of consanguinity or affinity relationship to a CRCNV employee, public officer or official, this section must be completed in its entirety.

DISCLOSURE OF OWNERSHIP/PRINCIPALS

Corporate/Business Entity Name: <u>PEAK SUBSTATION SERVICES, LLC</u>	
"Doing Business As" (if applicable):	
Street Address: <u>801 1ST AVE NORTH</u>	Website: <u>www.peaksubstation.com</u>
City, State and Zip Code: <u>BIRMINGHAM, AL 35203</u>	POC Name and Email: <u>Jason Harms jharms@peaksubstation.com</u>
Telephone Number: <u>877-324-0909 x1</u>	Fax Number: <u>205-324-0955</u>
Local Street Address:	Website:
City, State and Zip Code:	Local Fax Number:
Local Telephone Number:	Local POC Name and Email:

All entities, with the exception of publicly-traded and non-profit organizations, must list the names of individuals holding more than five percent (5%) ownership or financial interest in the business entity appearing before the CRCNV.

Publicly-traded entities and non-profit organizations shall list all Corporate Officers and Directors in lieu of disclosing the names of individuals with ownership or financial interest.

Entities include all business associations organized under or governed by Title 7 of the Nevada Revised Statutes, including but not limited to private corporations, close corporations, foreign corporations, limited liability companies, partnerships, limited partnerships, and professional corporations.


Full Name	Title	% Owned <small>(Not required for Publicly Traded Corporations/Non-profit organizations)</small>
<u>LARRY BLUNT</u>	<u>PRESIDENT</u>	<u>78%</u>
<u>JASON HARMS</u>	<u>SALES MANAGER</u>	<u>10%</u>
<u>WILLIAM DAVIS</u>	<u>ESTIMATOR</u>	<u>10%</u>

This section is not required for publicly-traded corporations.

1. Are any individual members, partners, owners or principals, involved in the business entity, a CRCNV full-time employee(s), or appointed/elected official(s)?
 Yes No (If yes, please note that CRCNV employee(s), or appointed/elected official(s) may not perform any work on professional service contracts, or other contracts, which are not subject to competitive bid.)

2. Do any individual members, partners, owners or principals have a spouse, registered domestic partner, child, parent, in-law or brother/sister, half-brother/half-sister, grandchild, grandparent, related to a CRCNV full-time employee(s), or appointed/elected official(s)?
 Yes No (If yes, please complete the Disclosure of Relationship form on Page 2. If no, please print N/A on Page 2.)

I certify under penalty of perjury, that all of the information provided herein is current, complete and accurate. I also understand that the CRCNV will not take action on items agendized without the completed disclosure form.

<u></u> Signature	<u>JASON HARMS</u> Print Name
<u>SALES MANAGER</u> Title	<u>8-30-23</u> Date

DISCLOSURE OF RELATIONSHIP

List any disclosures below:

(Mark N/A, if not applicable.)

NAME OF BUSINESS OWNER/PRINCIPAL	NAME OF CRCNV EMPLOYEE/OFFICIAL AND JOB TITLE	RELATIONSHIP TO CRCNV EMPLOYEE/OFFICIAL

“Consanguinity” is a relationship by blood. “Affinity” is a relationship by marriage.

“To the second degree of consanguinity” applies to the candidate’s first and second degree of blood relatives as follows:

- Spouse – Registered Domestic Partners – Children – Parents – In-laws (first degree)
- Brothers/Sisters – Half-Brothers/Half-Sisters – Grandchildren – Grandparents – In-laws (second degree)

For CRCNV Use Only:

If any Disclosure of Relationship is noted above, please complete the following:

- Yes No Is the CRCNV employee(s) noted above involved in the contracting/selection process for this particular agenda item?
- Yes No Is the CRCNV employee(s) noted above involved in any way with the business in performance of the contract?

Notes/Comments:

Signature

Print Name (Authorized Department Representative)

DISCLOSURE OF RELATIONSHIP

For CRCNV Use Only:

If any Disclosure of Relationship is noted above, please complete the following:

Yes No Is the CRCNV employee(s) noted above involved in the contracting/selection process for this particular agenda item?

Yes No Is the CRCNV employee(s) noted above involved in any way with the business in performance of the contract?

Notes/Comments:

Signature

Print Name (Authorized Department Representative)

For CRCNV Use Only:

If any Disclosure of Relationship is noted above, please complete the following:

Yes No Is the CRCNV employee(s) noted above involved in the contracting/selection process for this particular agenda item?

Yes No Is the CRCNV employee(s) noted above involved in any way with the business in performance of the contract?

Notes/Comments:

Signature

Print Name (Authorized Department Representative)

For CRCNV Use Only:

If any Disclosure of Relationship is noted above, please complete the following:

Yes No Is the CRCNV employee(s) noted above involved in the contracting/selection process for this particular agenda item?

Yes No Is the CRCNV employee(s) noted above involved in any way with the business in performance of the contract?

Notes/Comments:

Signature

Print Name (Authorized Department Representative)



**Colorado River Commission of Nevada
100 N. City Parkway, Suite 1100
Las Vegas, Nevada 89106-4614**

Garnet Valley Water System - 2920 Substation

**Contract No. CRCGV-01
Distribution Transformers**

Bid Documents and Specifications

For Award
November 12, 2024

GARNET VALLEY WATER SYSTEM - 2920 SUBSTATION

**Contract No. CRCGV-01
Distribution Transformers**

Bid Documents and Specifications

TABLE OF CONTENTS

<u>Item</u>	<u>Section</u>
Request for Bids	100
Bid Instructions	200
Bid Form	300
Bid Addendum	320
Bid Clarification	340
Contract No. CRCGV-01, Distribution Transformers.....	400
Performance Bond	500
Summary of the Work	600
Submittals	700
Equipment.....	800
Manufacturer's Field Service.....	900
Certification Sheet and Specifications for Distribution Transformers.....	1000
Drawing List	1100

SECTION 100 REQUEST FOR BIDS

1. Notice.

The Colorado River Commission of Nevada (CRCNV) hereby requests that you submit a bid to supply all or a portion of the material described in the following documents, under the terms of the Contract included herein.

Vendors shall submit their proposals by using Create Quote through the State electronic procurement website, <https://NevadaEPro.com>, in accordance with the instructions provided on the NevadaEPro website.

Refer to Instructions for Vendors Responding to a Bid in the Important Links section on the front page of NevadaEPro for instructions on how to submit a Quote using NevadaEPro

The Material shall be purchased by the CRCNV pursuant to NRS 538.161(2) and its established procedures for Purchasing Electrical Materials for the Power Delivery Project. The contract shall be awarded and administered in accordance with the laws of the State of Nevada.

All Bids must be in accordance with this Request for Bids, the Bid Form and the Agreement published herein, and the documents referenced or included herein. Complete sets of Bid Documents shall be used in preparing Bids; CRCNV assumes no responsibility for error or misinterpretations resulting from the use of incomplete sets of Bid Documents.

Additional copies of documents may be requested by electronic mail to crcadmins@crc.nv.gov.

At said place and time, and promptly thereafter, all bids that have been duly received will be opened and read aloud. The award of the Contract will be made at a later publicly-noticed meeting of the CRCNV.

2. Equipment.

The Equipment to be purchased under the Contract is generally described as follows:

Two (2) Distribution Transformers to be used for step-down purposes. All transformers with the same ratios provided under this specification shall be of identical construction, including all ratings, components, wiring, physical size, etc. Technical Specifications are included as a part of this Contract. Items referred to as "Division 1" or "Div 1" documents within the Technical Specifications shall be defined as Sections 100-1100 of this Contract.

3. Questions Regarding Request for Bid.

Questions concerning this Request for Bid should use the Bid Q&A feature in NevadaEPro, <https://NevadaEPro.com>.

4. Pricing and Security.

Bids will be received on a unit price basis as described in the Bid Form. Bid Security will not be required. The selected Bidder(s) is required to post a performance bond in an amount equal to the Contract Price.

5. Multiple Awards.

CRCNV may award this contract in part to multiple Bidders.

6. Bid Acceptance.

All bids remain subject to acceptance by the CRCNV for sixty (60) days.

If the CRCNV elects to accept Bidder's Bid, CRCNV shall give the Bidder notice thereof within the number of days set forth in the Bid Form.

Date: 03/29/2024

By:



Shae Pelkowski

Assistant Director for Engineering and
Operations

BID RESPONSE DEADLINE: 05/13/2024

**SECTION 200
BID INSTRUCTIONS**

1. Bid Form.

The Bid Form is found in section 300. The Bid Form must be completed in ink. The names of all persons signing must be legibly printed below their signatures.

All blanks in the Bid Form must be filled. If a Bidder elects not to submit a bid for a specific item listed in the Bid Form, indicate such intent with the words "No Bid" in lieu of a proposed price. The bid must contain an acknowledgment of receipt of all Addenda, the numbers and dates of which must be filled in on the Bid Form.

No alteration in bids, or in the printed forms therefore, by erasures, interpolations, or otherwise will be acceptable.

2. Bid Security.

Bid security is not required.

3. Bids as Public Records.

The CRCNV is a public agency as defined by state law. As such, it is subject to the Nevada Public Records Law (Chap. 239 of *Nevada Revised Statutes* [NRS]). All of the CRCNV's records are public records (unless otherwise declared by law to be confidential), which are subject to inspection and copying by any person. Bidders are advised that after a bid is received by the CRCNV, its contents will become a public record and nothing contained in the proposal will be deemed to be confidential.

4. Submission of Bids.

Proposals shall be received via <https://NevadaEPro.com> no later than the date and time specified on the General Tab of the Bid Solicitation in NevadaEPro. Proposals that are not submitted by bid opening time and date shall not be accepted. Vendors may submit their proposal any time prior to the deadline stated in NevadaEPro. In the event that dates, and times specified in this document and dates times specified in NevadaEPro conflict, the dates and time in NevadaEPro shall take precedence.

5. Evaluation of Bids.

The Equipment will be purchased by the CRCNV pursuant to NRS 538.161 (2) and the CRCNV's established Procedures for Purchasing Electrical Materials for the Power Delivery Project. The contract will be awarded and administered in accordance with the laws of the State of Nevada.

6. Rejection of Bids.

The CRCNV reserves the right to reject any or all bids, including without limitation the rights to reject any or all nonconforming, non-responsive, unbalanced, or conditional bids, and to reject the bid of any Bidder if the CRCNV believes that it would not be in the best interest of the CRCNV to make an award to that Bidder. The CRCNV also reserves the right to waive formalities.

7. Signing of Contract.

The CRCNV will issue three (3) copies of the Contract Documents to the successful Bidder. Within the number of days set forth in the Bid Form, the successful Bidder must sign all copies of the Contract, leaving the dates blank, must insert the required Bonds and power of attorney in the appropriate places, and deliver all copies to the CRCNV. The CRCNV will, thereafter, execute all copies of the Contract and return one original copy to the Contractor.

8. Performance Bond.

The successful Bidder will be required to furnish a Procurement Performance Bond as security for the faithful performance of the Contract, which must be at least as protective as those bonds otherwise required pursuant to NRS 339.025.

**SECTION 300
BID FORM**

1. Project Identification:

Garnet Valley Water System - 2920 Substation
Contract No. CRCGV-01
Distribution Transformers

2. This Bid is Submitted By:

Name: Peak Substation Services, LLC
Address: 801 1st Ave North
Birmingham, AL 35203

3. This Bid is Submitted To:

Colorado River Commission of Nevada
555 E. Washington Avenue, Suite 3100
Las Vegas, Nevada 89101-1065

4. Bid Terms and Conditions.

4.1 The undersigned Bidder proposes and agrees, if this bid is accepted, to enter into a Contract with the CRCNV in the form included in section 400 of this Request for Bid and to perform and furnish all Work as specified or indicated in the Contract Documents within the specified time and for the amount indicated in the bid and in accordance with the other terms and conditions incorporated by the Contract.

4.2 Bidder accepts all of the terms and conditions of the Bid Instructions. This bid remains subject to acceptance for sixty (60) days after the day the bids are due. Bidder will sign and submit the documents required by the Contract Documents within fifteen (15) days after the date of CRCNV's Notice of Award.

4.3 In submitting this bid, Bidder represents that:

4.3.1 Bidder has examined copies of the Request for Bids and all the documents contained therein, and copies of the following Addenda (receipt of which is hereby acknowledged):

No. _____	Dated _____
No. _____	Dated _____
No. _____	Dated _____

- 4.3.2. Bidder has become familiar with and satisfied itself as to the general, local, and site conditions that may affect cost, progress, performance, and furnishing of the Equipment.
- 4.3.3 Bidder is familiar with and has satisfied itself as to all federal, state, and local laws and regulations that may affect the cost, progress, performance, and furnishing of the Equipment.
- 4.3.4 Bidder is aware of the general nature of the work to be performed by the CRCNV or others, including the off-loading or installation of Equipment for which this Bid is submitted.
- 4.3.5 Bidder has given CRCNV written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Contract Documents and the written resolution thereof by CRCNV is acceptable to Bidder. The Contract Documents are sufficient to indicate and convey understanding to Bidder of all its terms and conditions for performing and furnishing the Equipment for which this Bid is submitted.
- 4.3.6 This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid. Bidder has not solicited or induced any person, firm, or corporation to refrain from bidding. Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over CRCNV.

5. Bid Price.

Bidder will design, manufacture, assemble, test, ship and provide ancillary services relating to the Equipment in accordance with the Contract Documents and in the amounts stated for unit prices. Conditions may arise which will necessitate changes in the quantities identified herein. The prices quoted per unit must be firm and not dependent on the final quantity of items. The Bidder agrees that increases or decreases in the estimated quantities will not justify unit price revisions.

Unit prices must be stated as firm. Escalation or adjustment factors will not be accepted by the CRCNV.

Unit prices must include labor, equipment, tools, vehicles, materials, supplies, permits, markups, supervision and all related costs.

Bid Item	Specification Section	Description	Unit	Unit Price	Qty	Extended Price	Proposed Manufacturer	Delivery Weeks After N.T.P*
401	1000	12.47-4.16/2.4 KV, 10 MVA Distribution Transformers to be used for step-down purposes. All transformers with the same ratios provided under this specification shall be of identical construction, including all ratings, components, wiring, physical size, etc. Service conditions as described in Specification No. 26 12 19. F.O.B. Las Vegas, NV (36.308883°.-114.989844°)	Each	\$794,250	2	\$1,588,470	HITACHI	82-85 WNS
CONTRACT PRICE						1,588,470		

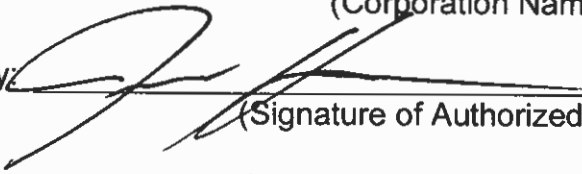
*Notice-to-Proceed.

6. Delivery Schedule.

Bidder agrees that the Equipment will be delivered on or before the above stated delivery dates, which dates comply with the times specified in the Contract Documents.

SIGNATURE OF BIDDER

By: PEARL SUBSTATION SERVICES
(Corporation Name)

By: 
(Signature of Authorized Person)

JASON HARRIS SALES MANAGER
(Printed Name and Title)

Business Address:

801 1ST AVE NORTH
BERMINGHAM, AL 35203

Phone

Fax No.

No. 205-324-0909 x1

205-324-0905

Email: jharris@pearlsubstation.com

This Bid is Submitted On: May 22, 2024

**SECTION 320
BID ADDENDUM**

(Bid Addenda, if any, to be included here when conformed Contract issued for signature).

**SECTION 340
BID CLARIFICATIONS AND SUBSTITUTIONS**

(Bidder Clarifications and Substitutions proposed by the Bidder and accepted by the CRCNV, if any, to be included here when conformed Contract issued for signature).

SECTION 400
CONTRACT NO. CRCGV-01
GARNET VALLEY WATER SYSTEM - 2920 SUBSTATION

THIS CONTRACT is made and entered into by and between the COLORADO RIVER COMMISSION OF NEVADA, hereinafter referred to as the "CRCNV," and, hereinafter referred to as the "Contractor." The CRCNV and the Contractor are sometimes individually referred to as "Party" and collectively referred to as the "Parties."

IN CONSIDERATION of the mutual covenants contained herein, the Parties hereto agree as follows:

1. Agreement to Provide Equipment

CRCNV agrees to purchase and Contractor agrees to design, manufacture, assemble, test, ship, and provide all other ancillary services related to the delivery of the following electrical equipment and materials pursuant to the terms and conditions established in these Contract Documents:

Bid Item	Description
401	Two (2) 12.47-4.16/2.4 KV, 10 MVA Distribution Transformers to be used for step-down purposes. All transformers with the same ratios provided under this specification shall be of identical construction, including all ratings, components, wiring, physical size, etc. Service conditions as described in Specification No. 26 12 19. F.O.B. Las Vegas, NV (36.308883°,-114.989844°)

2. Definitions

2.1 "Acceptance" or "Final Acceptance" means the formal action by the CRCNV accepting the Equipment, or any portion thereof, as complete and satisfactory, subject to Contractor's warranties.

2.2 "Acceptance Testing" means any testing required by the CRCNV prior to, and as a prerequisite of, CRCNV's Acceptance.

2.3 "Bid Form" means the approved form on which the CRCNV requested that the Contractor prepare and submit a Bid to the CRCNV as an offer to provide the Equipment, which has now been accepted by the CRCNV pursuant to this Contract and is therefore incorporated herein as a part of this Contract.

2.4 "Change Order" means the CRCNV's signed written order to the Contractor authorizing any addition or deletion of, or revision to, the Equipment.

2.5 “Contract Documents” means the documents contained in this conformed and bound volume, including section 100, Request for Bids; section 200, Bid Instructions; section 300, Bid Form; section 320, Bid Addendum; section 340, Bid Clarification; section 400, Contract No. CRCGV-01, Distribution Transformers; section 500, Performance Bond; and the Specifications contained in section 600 through section 1100. The term includes exhibits to this Contract attached hereto, if any, Contractor’s performance and payment bonds, any notice of award or notice to proceed issued by the CRCNV, Contractor’s Proposal, and any documentation submitted by the Contractor and accepted by the CRCNV prior to the execution of this Contract, and all Change Orders amending, modifying, or supplementing this Contract which may be delivered or issued after the effective date of this Contract and are not attached hereto. Submittals are not Contract Documents.

2.6 “Contract Price” means the total compensation payable to the Contractor for the Contractor’s performance of this Contract, as proposed by Contractor in Contractor’s Bid, and as may be amended by any Change Order pursuant to section 8.

2.7 “Executive Director” means the executive director of the Colorado River Commission of Nevada.

2.8 “Equipment” means the electrical equipment and materials, or any portion thereof, described in the Specifications.

2.9 “Notice to Proceed” means the written notice given by the CRCNV to the Contractor fixing the date on which the Contractor shall start to perform the Contractor’s obligations under the Contract Documents.

2.10 “Performance Milestones” means those dates by which particular portions of the Equipment or work related thereto must be complete, as set forth in section 600.

2.11 “Project” means the Garnet Valley Water System - 2920 Substation.

2.12 “Request for Bids” means the CRCNV’s request that the Contractor and others make a Bid to contract with the CRCNV.

2.13 “Specifications” means the technical descriptions of the Equipment and services to be furnished by the Contractor, which are included as part of the CRCNV’s Request for Bids, Contractor’s Bid, and all modifying addenda and Change Orders thereto.

2.14 “Submittals” includes shop drawings, catalog cuts, samples, operating and maintenance instructions, progress payments, requests, and other documents and items specified to be delivered to the CRCNV.

2.15 “Work” means everything required or reasonably inferred to be furnished and done by the Contractor pursuant to the Contract Documents.

3. CRCNV’s Representative

3.1 The CRCNV’s Representative shall be Mr. Shae Pelkowski, Assistant Director of Engineering and Operations. The CRCNV’s Representative is generally

authorized to act fully on behalf of the CRCNV. The CRCNV's Representative has complete authority to transmit instructions, receive information, interpret and define the CRCNV's policies and decisions with respect to the materials, equipment, elements, and systems required under these Contract Documents.

3.2 The address of the CRCNV's Representative is:

Colorado River Commission of Nevada
100 N City Parkway, Suite 1100
Las Vegas, NV 89106

3.3 The CRCNV's Representative may designate any other employee of the CRCNV to perform his responsibilities under this Contract.

4. Contractor's Representative

Within ten (10) days following execution of this Contract by the Contractor, the Contractor must identify in writing the Contractor's Representative. The Contractor's Representative is authorized to act fully on behalf of the Contractor. The Contractor may change or designate another individual as its Contractor's Representative by written notice to the CRCNV.

5. Contract Price

The CRCNV shall pay the Contract Price to the Contractor in current U.S. funds in the amount described in the Contractor's Bid and in accordance with the payment procedures provided in section 7, unless changed in accordance with section 8, for the total cost of the Equipment and for the performance of all the Work described in the Contract Document.

6. Commencement and Completion of Performance

Upon receipt of a written notice to proceed from the CRCNV's Representative, the Contractor shall proceed with the performance of this Contract, pursuing the Work diligently, to the end that the Equipment be manufactured and delivered in accordance with the Performance Milestones.

7. Payment Procedures

7.1 **Progress Payments.** The Contractor shall submit an application for payment to the CRCNV for the amount of thirty percent (30%) of the Contract value upon placement of the order, thirty percent (30%) of the Contract value upon submission of the approval drawings, thirty percent (30%) of the Contract value upon shipment of the Equipment.

7.2 **Procedure for Progress Payments.** CRCNV shall pay Contractor within thirty (30) days after receipt of a correct, itemized invoice identifying the Equipment shipped.

7.3 Application for Final Payment. The Contractor shall submit an application for final payment upon completion and Final Acceptance by the CRCNV of the Contractor's delivery of all Equipment. (See section 600 for date of anticipated Final Acceptance.) The Contractor's application for final payment must be accompanied by the consent of the Contractor's sureties that the CRCNV may release any payment retainage, together with a certified copy of any surety's agent's authority to act for the surety.

7.4 Procedure for Final Payment. The CRCNV shall pay the Contractor within thirty (30) days of receipt of a correct, itemized invoice for the final payment. The CRCNV's payment of the final payment shall constitute a full waiver of all claims by the CRCNV against the Contractor, other than those arising from unsettled liens, from defective work appearing after final inspection, or from the Contractor's failure to comply with the requirements of this Contract. The Contractor's receipt of final payment shall constitute the Contractor's waiver of all claims by the Contractor against the CRCNV, other than those previously made in writing and remaining unresolved at the time of final payment.

8. Changes in the Work, Contract Price or Performance Milestones

8.1 Without invalidating this Contract, the CRCNV may, at any time or from time to time, issue a Change Order requiring additions to, deletions from, or revisions to the Equipment or quantities stated herein. Upon receipt of a Change Order, the Contractor shall proceed with the performance of the Contract Documents as altered by the Change Order. If Contractor's compliance with any Change Order would cause an increase in the Contract Price, the Contractor shall, within fifteen (15) days, notify the CRCNV and submit a signed, written claim therefore including information regarding the events and circumstances and supporting data giving rise to the Contractor's claim. The CRCNV shall approve or disapprove the Contractor's claim within twenty (20) days after receipt of the Contractor's claim and, if approved, issue a Change Order amending the Contract Price.

8.2 If the Contractor's compliance with any Change Order would interfere with the Contractor's ability to complete the performance of this Contract within the Performance Milestones, including final performance of this Contract, the Contractor shall immediately notify the CRCNV and submit a signed, written request for amendment of the Performance Milestones. The CRCNV shall approve or disapprove the Contractor's request within twenty (20) days and, if approved, issue a Change Order amending the Performance Milestones.

8.3 The CRCNV shall not compensate Contractor for additional work performed by the Contractor without authorization or Change Order. The Contractor shall notify its surety of any changes in the general scope of the work to be performed under this Contract.

8.4 This Contract may be amended, modified, or supplemented only by Change Order as provided herein or otherwise by amendment executed in writing by the CRCNV and the Contractor.

9. “Like”, “Equivalent” And “Or Equal” Items

9.1 Whenever an item of material or equipment is specified or described in the Request for Bids by using the name of a proprietary item or the name of a particular supplier, the specification or description is intended to establish the type, function, and quality required. “Like, “equivalent” and “or equal” items may be substituted only if, in the CRCNV’s sole discretion, although not qualifying as an “or equal” item, is an item essentially equivalent to that named and a substitute therefore. Proposals to substitute like or equivalent items of material or equipment will not be accepted by the CRCNV from anyone other than the Contractor. If the Contractor wishes to furnish or use a substitute item of material or equipment, the Contractor shall first make written application for evaluation thereof to the CRCNV, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified, and be suited to the same use as that specified. The application must state the extent, if any, to which use of the proposed substitute will prejudice Contractor’s completion of performance of this Contract on time as required, whether substitution of the item will require a change in this Contract (or in the provisions of any other direct contract with the CRCNV for work related to the Project) or adaptation of the design of the Equipment or the Project to the proposed substitute, and whether incorporation or use of the substitute in connection with the Equipment is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified must be identified in the application, and available maintenance, repair, and replacement service must be indicated. The application must also contain an itemized estimate of all costs or credits that would result directly or indirectly from use of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which must be considered by the CRCNV in evaluating the proposed substitute. The CRCNV may require the Contractor to furnish any additional data about the proposed substitute.

9.2 No “like”, “equivalent”, “or equal” or other substitutes shall be ordered, installed, or utilized until the CRCNV’s review is complete. The CRCNV must be allowed a reasonable time within which to evaluate each of Contractor’s proposals for such substitutions. The CRCNV’s determination regarding such substitutions must be evidenced either by acceptance of the Contractor’s Bid in which the substitution was identified, a written Change Order, or completion of the submittal review procedure.

9.3 The CRCNV may require the Contractor to furnish, at the Contractor’s expense, a special performance guarantee or other surety with respect to any “like,” “equivalent,” “or equal” or other substitutes. Regardless of the CRCNV’s decision regarding the Contractor’s proposal to substitute an item, the Contractor is liable for the cost of the charges of the CRCNV, including the costs of all data offered in support of any proposed “like” “equivalent,” “or equal” or other substitute item, and shall reimburse the CRCNV for those costs. The CRCNV shall record the time required by the CRCNV in such evaluations and in making changes in the Equipment, Project, this Contract (or in the provisions of any other direct contract with CRCNV for work related to the Project) occasioned thereby.

10. Warranty and Guarantee; Tests and Inspections; Correction or Acceptance of Defective Work

10.1 The Contractor warrants and guarantees to the CRCNV that all materials and equipment will be new unless otherwise specified and that all work will be of good quality and free from faults or defects and in accordance with the requirements of the CRCNV's Request for Bids and of any inspections, tests, or approvals referred to herein. The CRCNV is entitled to reject all unsatisfactory, faulty, or defective work and all work not conforming to the CRCNV's Request for Bids at the time of the CRCNV's Acceptance thereof or of such inspections, tests, or approvals.

10.2 The Contractor shall perform all inspections, tests, and obtain all approvals required by this Contract, or by any laws, ordinances, rules, regulations or orders of any public authority having jurisdiction over the Equipment, wherever it may be or become located. The Contractor is responsible for the costs of such inspections, tests or approvals and shall provide the CRCNV with any certificate of inspection, testing or approval resulting therefrom.

10.3 If the Contractor does not have the necessary test facilities or personnel to perform all required inspections, tests or approvals, the Contractor shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents, which the Contractor cannot perform.

10.4 The Contractor shall provide the CRCNV timely notice of readiness of Equipment for all inspections or tests requiring observation by the CRCNV. The CRCNV's observation of inspections or tests, or inspections or tests performed by persons other than the Contractor, with the exception of Acceptance Testing, does not relieve the Contractor's obligation to perform this Contract as specifically required herein. Compliance is the responsibility of the Contractor. No act or omission on the part of the CRCNV may be construed as relieving the Contractor of this responsibility. Inspection of Equipment later determined to be nonconforming is not cause or excuse for acceptance of the nonconforming Equipment.

10.5 The Contractor shall provide the CRCNV timely notice of readiness of Equipment for Acceptance Testing. The Contractor shall provide the CRCNV reasonable access to the Contractor's premises and provide proper and safe facilities for the CRCNV's observation or conduct of Acceptance Testing.

10.6 If the CRCNV determines, upon Acceptance Testing, or thereafter until the expiration of one year after the date of Final Acceptance, or any such longer period required by the CRCNV's Request for Bids or the Contractor's Proposal, that the Equipment, or any portion thereof, is defective, CRCNV may order the Contractor to correct such defects or replace them within a reasonable time, as may be particularly described in the CRCNV's written order. The Contractor is responsible for the costs of such correction or replacement and for all "in-and-out" costs associated with the removal or replacement of the Equipment, or any portion thereof. The Contract Price must not be changed because of such correction, removal, or replacement. The CRCNV, at CRCNV's expense, will arrange to have the CRCNV's external connections disconnected from defective Equipment in order to facilitate removal of Equipment by the Contractor.

10.7 Nothing in this article concerning the correction or replacement of defective Equipment establishes any period of limitation with respect to any claim by the CRCNV against the Contractor for performance or damages arising out of the Contractor's obligation to perform this Contract.

11. Data, Reports, and Drawings

11.1 All data, reports, drawings and specifications provided to the Contractor by the CRCNV pursuant to this Contract or the CRCNV's Request for Bids remains the property of the CRCNV and must be delivered to the CRCNV upon completion of performance of this Contract. The Contractor may keep copies thereof but may not release those copies without the prior written consent of the CRCNV. Such documents are not intended or represented by CRCNV to be suitable for reuse by the CRCNV or others, either for extension of the Project or for other projects. Any reuse of such documents by the Contractor without the prior written consent of the CRCNV is at the Contractor's risk and the Contractor shall hold the CRCNV harmless with respect to any liability arising out of such reuse.

11.2 The books, records, documents and accounting procedures and practices of the Contractor relative to direct costs and expenditures under this Contract are subject to inspection, examination and audit by the State, the Commission, the attorney general of Nevada and the Nevada state legislative auditor.

11.3 Subject to applicable state law, the Contractor shall not be restricted in any way from releasing information in response to a subpoena, court order, or legal process, but shall notify the CRCNV of the demand for information before the Contractor responds to such demand.

11.4 The Contractor shall retain its rights in its standard drawing details, designs specifications, databases, computer software and any other proprietary property. Rights to intellectual property developed, utilized, or modified in the performance of the services remain the property of the Contractor.

12. Liquidated Damages

12.1 The CRCNV and the Contractor recognize that time is of the essence of this Contract and that the CRCNV will suffer financial loss if the Equipment is not manufactured or delivered within the times specified as Performance Milestones, plus any extensions thereof allowed by Change Order. The Parties also recognize the delays, expense, and difficulties involved in proving in a legal proceeding the actual loss suffered by the CRCNV if the Equipment is not manufactured or delivered on time or is not acceptable to CRCNV. Accordingly, instead of requiring any such proof, the CRCNV and the Contractor agree that as liquidated damages for delay (but not as a penalty) the Contractor shall, at the CRCNV's election in lieu of termination of this Contract, pay the CRCNV the following sums for each day that expires after the Performance Milestones in the Contractor's Proposal:

Bid Item	Description	Liquidated Damages, Per Day
401	Two (2) 12.47-4.16/2.4 KV, 10 MVA Distribution Transformers to be used for step-down purposes. All transformers with the same ratios provided under this specification shall be of identical construction, including all ratings, components, wiring, physical size, etc. Service conditions as described in Specification No. 26 12 19. F.O.B. Las Vegas, NV (36.308883°,-114.989844°)	\$500 each unit of the Bid Item

12.2 The total of all liquidated damages assessed by Contractor must not exceed the Contract Price. The CRCNV is entitled to deduct the liquidated damages from any money in its hands, otherwise due, or to become due, to the Contractor, or to initiate applicable dispute resolution procedures and recover liquidated damages for nonperformance of this Contract.

13. Insurance, Bonds, and Indemnification

13.1 **General.** The Contractor must not commence any Work under this Contract until it obtains, at its own expense, all insurance and surety bonds as required in this article. The types of insurance and surety bonds to be obtained are Workers' Compensation, Employers' Liability, Automobile Liability, Commercial General Liability, Transportation, and Performance Bonds, as outlined in the following portions of this article. The Workers' Compensation, Employers' Liability, and Automobile Liability insurance must be maintained in force for the full period of this Contract. The Commercial General Liability insurance must be maintained in force for the full period of this Contract and for one year thereafter.

13.2 **Generally Accepted Professional Practices.** The services provided or procured by the Contractor pursuant to this Contract must be in accordance with generally accepted applicable professional practices and principles. The insurance, bond, and indemnification required by this Contract must be in addition to the Contractor's duty to perform this Contract and are cumulative to any other right of indemnification or contribution, which the CRCNV may have in law, equity or otherwise and must survive the completion of the Contractor's performance of the Work.

13.3 **Contractor's Responsibility.** Nothing contained in these insurance requirements may be construed as limiting the extent of the Contractor's total responsibility for payment if claims arising in whole or in part from the actions of a third party when such actions might be taken as a result of the Contractor's operations under this Contract.

13.4 Minimum Scope and Limits of Insurance.

A. **MINIMUM SCOPE AND LIMITS OF INSURANCE** - Contractor shall provide coverage with limits of liability not less than those stated below. An excess liability policy or umbrella liability policy may be used to meet the minimum liability requirements provided that the coverage is written on a "following form" basis.

1. Commercial General Liability – Occurrence Form

Policy shall include bodily injury, property damage, broad form contractual liability, and XCU coverage.

Minimum Requirements:

- General Aggregate \$2,000,000
- Products – Completed Operations Aggregate \$1,000,000
- Personal and Advertising Injury \$1,000,000
- Each Occurrence \$1,000,000

a. The policy shall be endorsed to include the following additional insured language: "The Colorado River Commission of Nevada shall be named as an additional insured with respect to liability arising out of the activities performed by, or on behalf of the Contractor, including completed operations".

2. Automobile Liability

Bodily injury and property damage for any owned, hired, and non-owned vehicles used in the performance of this Contract.

- Combined Single Limit (CSL) \$1,000,000

a. The policy shall be endorsed to include the following additional insured language: "The Colorado River Commission of Nevada shall be named as an additional insured with respect to liability arising out of the activities performed by, or on behalf of the Contractor, including automobiles owned, leased, hired or borrowed by the Contractor".

3. Worker's Compensation and Employers' Liability

Workers' Compensation	Statutory
Employers' Liability	
Each Accident	\$100,000
Disease – Each Employee	\$100,000
Disease – Policy Limit	\$500,000

- a. Policy shall contain a waiver of subrogation against the State.
- b. This requirement shall not apply when a contractor or subcontractor is exempt under N.R.S., **AND** when such contractor or subcontractor executes the appropriate sole proprietor waiver form.

4. Builders' Risk Insurance or Installation Floater

In an amount equal to the initial Contract Amount plus additional coverage equal to Contract Amount for all subsequent change orders.

- a. The Colorado River Commission of Nevada, shall be Insureds on the policy.
- b. Coverage shall be written on an all-risk, replacement cost basis and shall include coverage for soft costs, flood, and earth movement.

- c. Policy shall be maintained until whichever of the following shall first occur: (1) final payment has been made; or (2) until no person or entity, other than the State of Nevada, has an insurable interest in the property required to be covered.
- d. Policy shall be endorsed such that the insurance shall not be canceled or lapse because of any partial use or occupancy by the State.
- e. Policy must provide coverage from the time any covered property becomes the responsibility of the Contractor, and continue without interruption during construction, renovation, or installation, including any time during which the covered property is being transported to the construction installation site, or awaiting installation, whether on or off-site.
- f. Policy shall contain a waiver of subrogation against the State of Nevada.
- g. Contractor is responsible for the payment of all policy deductibles.

5. Transportation (Cargo) Insurance

In an amount equal to the initial Contract Amount plus additional coverage equal to Contract Amount for all subsequent change orders.

a. Transportation insurance must be of the "all risks" type and must provide coverage against physical loss or damage to equipment and materials in transit to the designated location. The insurance must include the interests of the Contractor, the Owner, and their respective representatives and agents, each of whom is deemed to have an insurable interest and must be listed as a named insured. The coverage amount must be not less than the full value of items exposed to risk in transit at any one time.

b. Transportation insurance must provide for losses to be payable to the Contractor and the Owner as their interests may appear and shall contain a waiver of subrogation rights against the insured parties. For insurance purposes, the risk of loss to equipment and materials remains with the Contractor until the equipment and materials are accepted by the assignee general construction contractor at the designated location.

c. The Contractor shall submit a copy of the transportation insurance policy to the Owner at least thirty (30) days before the scheduled shipping date. The policy must quote the insuring agreement, must list all exclusions, and must state that thirty (30) days' written notice must be given to the Owner before the policy is changed or canceled.

B. ADDITIONAL INSURANCE REQUIREMENTS: The policies shall include, or be endorsed to include the following provisions:

- 1. On insurance policies where the Colorado River Commission of Nevada, is named as an additional insured, the CRCNV shall be an additional insured to the full limits of liability purchased by the Contractor even if those limits of liability are in excess of those required by this Contract.
- 2. The Contractor's insurance coverage shall be primary insurance and non-contributory with respect to all other available sources.

- C. **NOTICE OF CANCELLATION:** Contractor shall for each insurance policy required by the insurance provisions of this Contract shall not be suspended, voided, or canceled except after providing thirty (30) days prior written notice been given to the State, except when cancellation is for non-payment of premium, then ten (10) days prior notice may be given. Such notice shall be sent directly to **Shae Pelkowski, Colorado River Commission of Nevada, 100 N City Parkway, Suite 1100, Las Vegas, Nevada 89106**. Should contractor fail to provide State timely notice, contractor will be considered in breach and subject to cure provisions set forth within this contract.

- D. **ACCEPTABILITY OF INSURERS:** Insurance is to be placed with insurers duly licensed or authorized to do business in the state of Nevada and with an “A.M. Best” rating of not less than A-VII. The State in no way warrants that the above-required minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.

- E. **VERIFICATION OF COVERAGE:** Contractor shall furnish the State with certificates of insurance (ACORD form or equivalent approved by the State) as required by this Contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.

13.5 **Endorsements.** All endorsements must be dated, reflect the name of the insurance company, the type of insurance and policy number, be executed by a duly authorized representative of the insurance company and be attached to the certificate. The additional insureds must be included by endorsement.

13.6 **Waiver of Subrogation.** By endorsement (ISO Form #CG 24 04 11 85 or its equivalent), the Contractor’s insurance carriers (except Nevada Workers’ Compensation) shall waive their rights of recovery against the Colorado River Commission of Nevada, and its successors or assigns including its commissioners, officers and employees individually and collectively.

13.7 **Primary Insurance.** In the event of any claim by a third party for loss, the insurance policies of the Contractor must be primary insurance with respect to any of the CRCNV’s insurance whose insurance must stand in an unbroken chain of coverage excess of the Contractor’s scheduled underlying primary coverage.

13.8 **Cost of Claims.** The Contractor is responsible for the cost of any claims under any policy with deductibles or self-insured retention.

13.9 **CRCNV’s Right to Obtain Insurance.** If the Contractor fails to procure or maintain insurance as required herein, the CRCNV must have the right, in addition to other rights or remedies, if the CRCNV so chooses, to procure or maintain the said insurance for and in the name of the Contractor with the CRCNV as co-insured, and the Contractor shall pay the cost thereof and furnish all necessary information to make effective and maintain such insurance. In the event the Contractor fails to pay such costs, the CRCNV is entitled to set off any sums from the compensation set forth in this Contract and directly pay for such coverage.

13.10 **Deductibles.** With respect to any and all insurance required under this article, the deductible must not exceed \$2,500.00, without the prior written approval of the CRCNV.

13.11 **Evidence of Insurance Required.** Before commencement of the Work, the Contractor and the Contractor's subcontractors must have delivered to the CRCNV certificates of insurance and required endorsements that attest to the fact that the Contractor and the Contractor's subcontractors have obtained the insurance as required by this Contract.

13.12 **Indemnification; Limited Liability.**

13.12.1 To the fullest extent permitted by law, the Contractor hereby indemnifies and saves harmless and defends the CRCNV, the CRCNV(s) of all property where this Contract will be performed, the Southern Nevada Water Authority and its member agencies, and each of their directors, officers, employees, and agents; not excluding the CRCNV's right to participate, against any and all claims, liability, loss, damage, cost, expense, award, fine or judgment (including attorneys' fees and costs) arising out of or resulting from the Contractor's conduct or performance of this Contract, including (without limitation) such claims, liability, loss, damage, cost, expense, award, fine or judgments which are attributable to or arising by reason of death or bodily injury of persons, injury or damage to property, defects in workmanship or materials, or design defects caused or resulting from the Contractor's acts or omissions, except to the extent those losses are solely caused by the CRCNV, its employees or agents under its direct control. In claims against any person or entity indemnified under this article by an employee of the Contractor, anyone directly or indirectly employed by the Contractor or anyone for whose acts the Contractor may be liable, the indemnification obligation under this article is not limited by a limitation on amount or type of damages, compensation or benefits payable by or for Contractor's workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts. It is the Contractor's sole responsibility to ascertain that the insurance requirements of this Contract are fulfilled. In the event that they are not, the Contractor is not relieved of his duty to perform, indemnify, defend and hold harmless the CRCNV nor is the CRCNV liable to the Contractor or any others in the event the Contractor's insurance, as accepted by the CRCNV, fails to meet the full requirements herein.

13.12.2 The CRCNV, an agency of the State of Nevada, will not waive and intends to assert available NRS chapter 41 liability limitations in all cases. Contract liability of both Parties is not subject to punitive damages. Liquidated damages do not apply unless otherwise specifically provided in the Contract Documents. Damages for any CRCNV breach must never exceed the amount of funds appropriated or authorized for payment under this Contract, but not yet paid to the Contractor, for the fiscal year budget in existence at the time of the breach. Damages for any Contractor breach must not exceed 150 percent of the contract maximum "not to exceed" value. Contractor's tort liability is not limited.

13.13 **Performance Bond.** The Contractor must furnish with the executed Contract, a performance bond in the amount of the Contract Price as security for faithful performance of all Contractors' obligations under this Contract. The Contractor must maintain that performance bond in effect during the term of this Contract and for one

year thereafter. The performance bond must be executed by a surety or sureties included in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies as published in Circular 570 by the Audit Staff Bureau of Government Financial Operations, U.S. Treasury Department". A certified copy of the agent's authority to act must accompany a bond signed by an agent. Only surety companies authorized to do business in, and having an agent for services of process in the state of Nevada will be acceptable. If the surety on any bond furnished by the Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in Nevada, or it ceases to meet the requirements of the preceding sub-article, the Contractor shall within ten (10) days thereafter substitute another bond and surety, both of which must be acceptable to the CRCNV.

14. Risk Of Delay

14.1 The Contractor shall accept the risk of any delays caused by the CRCNV. If the Contractor is delayed in the performance of this Contract because of such conditions, the Contractor shall have no claim against the CRCNV for damages or contract adjustment other than an extension of Performance Milestones and the waiving of liquidated damages during the period occasioned by the delay.

14.2 If the Contractor is delayed due to circumstances beyond the Contractor's control, including, but not limited to, actions or failures of any of the CRCNV's other contractors, fires, floods, labor disputes, pandemics, epidemics, abnormal weather conditions, or acts of God, the Contractor shall immediately notify the CRCNV and submit a signed, written request for amendment of the Project Milestones. The CRCNV shall approve or disapprove the Contractor's request within twenty (20) days and, if approved, issue a Change Order amending the Project Milestones.

14.3 The CRCNV reserves the right to order the Contractor to delay shipment of Equipment in accordance with Performance Milestones. If such a delay is ordered by the CRCNV in writing, the CRCNV shall reimburse the Contractor for the Contractor's costs which would not have been incurred except for the delay ordered by the CRCNV. Such costs may include reasonable storage costs, insurance, and transportation to a reasonable storage facility.

15. Effect and Termination

15.1 This Contract shall become effective as of the date of its execution and shall remain in effect, unless terminated earlier by the CRCNV as provided for herein, until one year after the CRCNV's Final Acceptance of the Equipment and Final Payment of the Contractor.

15.2 **Failure to meet Performance Milestones.** The CRCNV reserves the right to cancel any portion of the Contractor's performance of this Contract which is not performed within the Performance Milestones. In the event of such cancellation, the CRCNV shall pay the Contractor in full for any portion of the Equipment which has been accepted by the CRCNV.

15.3 Stop Work. If at any time the CRCNV should determine the Contractor's work or the Equipment to be defective, or if the Contractor fails to supply suitable materials, equipment or supplies, the CRCNV may order Contractor to stop work, or any portion thereof, until the cause of such order has been eliminated.

15.4 CRCNV's Right to Take Possession and Terminate. If the Contractor is adjudged to be bankrupt or insolvent, or makes an assignment for the benefit of its creditors, or if a trustee files a petition against the Contractor to take advantage of any debtor's act or to reorganize the Contractor under bankruptcy or similar laws; if Contractor repeatedly fails to supply suitable materials or equipment in the performance of this Contract; if Contractor fails to make prompt payments for labor, materials, or equipment; if Contractor disregards any laws, ordinances, rules, regulation or orders of any public body having jurisdiction over the Equipment or the Contractor's performance of this Contract; or, if the Contractor disregards the CRCNV's orders or Change Orders under this Contract, then the CRCNV may, without prejudice to any other right or remedy the CRCNV may have, and after giving the Contractor and his surety at least seven days' written notice, terminate this Contract and take possession of all Equipment then delivered, and obtain all additional Equipment required by this Contract from third party sources by whatever method the CRCNV may choose. In such case, the Contractor shall not be entitled to receive any further payment. If the unpaid balance of the Contract Price exceeds the CRCNV's direct and indirect costs of obtaining additional Equipment required by this Contract, including compensation of additional professional services, such excess must be paid to the Contractor. If such costs exceed such unpaid balance, the Contractor shall pay the CRCNV the difference.

16. Taxes.

The Contractor must promptly pay all taxes that are lawfully assessed against the Contractor in connection with the Work. The CRCNV is exempt from sales tax pursuant to a ruling and determination of the attorney general of the State of Nevada.

17. Unemployment Compensation.

The Contractor must at all times comply with the requirements of Nevada Revised Statutes ("NRS") chapter 612 (Unemployment Compensation).

18. Discrimination.

The Contractor shall not, during its performance of this Contract, discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, or age, including, but not limited to, the following: employment, upgrading, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor shall insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials. Any violation of such provision by the subcontractor constitutes a material breach of this Contract.

19. Disputes.

Controversies arising out of this Contract must be resolved pursuant to the jurisdiction and substantive law of the courts of competent jurisdiction of the State of Nevada.

20. Waiver of Claims.

The CRCNV's making and the Contractor's acceptance of final payment constitute a waiver of all claims by the CRCNV against the Contractor and the Contractor against the CRCNV, except claims arising from unsettled liens, from defective work appearing after final inspection, or from failure to comply with the Contract or the terms of any special guarantees specified therein. The CRCNV's making and the Contractor's acceptance of final payment does not constitute a waiver by the CRCNV of any rights in respect of the Contractor's continuing obligations under the Contract, nor a waiver of those claims previously made in writing and still unsettled.

21. Notices.

21.1 Any notice, demand, or request required or authorized by this Contract to be served, given, or made shall be deemed properly served, given or made if delivered in person or sent by electronic mail and certified mail, postage prepaid, to the persons specified below:

Colorado River Commission of Nevada
c/o Executive Director
100 N City Parkway, Suite 1100
Las Vegas, NV 89106
Email: CRCAdmins@crc.nv.gov

Peak Substation Services, LLC.

c/o Sales Manager

801 1st Ave North

Birmingham, AL 35203

21.2 Either Party may at any time, by written notice to the other Party, designate different or additional persons or different addresses for the giving of notices, demands, or requests hereunder.

22. Submission of Claims.

Should the CRCNV or the Contractor suffer injury or damage to person or property because of any error, omission, or act of the other Party or of any of the other Party's employees or agents or others for whose acts the other Party is legally liable, claim must be made in writing to the other Party within a reasonable time of the first observance of such injury or damage. The provisions of this article shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

23. Assignment of Contract.

The Contractor shall not assign or otherwise transfer its rights or obligations under this Contract without the prior written approval of the CRCNV. This Contract inures to the benefit of and is binding upon the respective successors and assigns of the Parties to this Contract but any assignment or other transfer of this Contract does not relieve the Parties of any obligation hereunder.

24. Severability.

Should any provision of this Contract for any reason be declared invalid or unenforceable by final and applicable order of any court or regulatory body having jurisdiction, such decision shall not affect the validity of the remaining portions, and the remaining portions shall remain in effect as if this Contract had been executed without the invalid portion. In the event any provision of this Contract is declared invalid, the Parties shall promptly renegotiate to restore this Contract as near as possible to its original intent and effect.

25. Survival.

Any provision of this Contract that expressly or by implication comes into or remains in force following the termination or expiration of this Contract survives the termination or expiration of this Contract.

26. Applicable Law; Venue.

This Contract and the rights of the Parties hereto must be interpreted, governed, and construed in accordance with the laws of the State of Nevada. The Parties consent to the venue and jurisdiction of the state of and federal courts within Clark County, Nevada.

27. Article Headings.

The article headings in this Contract are included only for convenience and reference and the Parties intend that they be disregarded in interpreting this Contract.

28. Waiver.

Either of the Parties shall have the right to excuse or waive performance by the other Party of any obligation under this Contract by a written notice signed by the Party so excusing or waiving. No delay in exercising any right or remedy shall constitute a waiver thereof, and no waiver by either party of the breach of any covenant of this Contract shall be construed as a waiver of any preceding or succeeding breach of the same or any other covenant or condition of this Contract.

29. Entire Agreement; Contractor Certification.

This Contract, together with the other Contract Documents, comprises the entire agreement between the CRCNV and the Contractor for the performance of the Work. The Contractor hereby certifies that the Contractor has read and understands every

provision contained in the Contract Documents. The Contractor is bound and must comply with each and every term, condition, and covenant set forth in the Contract Documents.

30. Authority to Execute.

Each individual signing this Contract represents and warrants that the Party represented has duly authorized such individual to execute this Contract with the intent that the Party be bound and obligated hereby.

IN WITNESS WHEREOF, the Contractor and the CRCNV have executed three duplicate originals of this Contract this _____ day of _____, 2024. The CRCNV will retain two counterparts and one counterpart will be delivered to the Contractor.

CONTRACTOR

By: _____

Its: _____

ATTEST

COLORADO RIVER COMMISSION OF NEVADA

By: _____

Puoy K. Premsirut
Chairwoman

ATTEST

Eric Witkoski
Executive Director

Approved as to Form:

Michelle Briggs
Special Counsel for Attorney General

**SECTION 500
PERFORMANCE BOND**

CONTRACTOR (Name and Address):

SURETY (Name and Principal Place of Business):

CRCNV (Name and Address):

Colorado River Commission of Nevada
100 N City Parkway, Suite 1100
Las Vegas, Nevada 89106

CONTRACT

Date:

Amount:

\$

Description: Contract No. CRCGV-01,
Garnet Valley Water System - 2920 Substation
Location: Clark County, Nevada

BOND

Date (Not earlier than Contract Date):

Modifications to this Bond Form:

CONTRACTOR AS PRINCIPAL (Seal below)

Company:

Signature: _____

Name and Title: _____

Attest: _____

Name and Title: _____

SURETY (Seal below)

Company:

Signature: _____

Name and Title: _____

Attest: _____

Name and Title: _____

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the CRCNV for the performance of the Contract, which is incorporated herein by reference.
2. If the Contractor performs the Contract, the Surety and the Contractor have no obligation under this Bond, except to participate in conferences as provided in paragraph 3.1.
3. If there is no CRCNV Default, the Surety's obligation under this Bond arises after:
 - 3.1 The CRCNV has notified the Contractor and the Surety at its address described in subsection 9 below, that the CRCNV is considering declaring the Contractor in default and has requested and attempted to arrange a conference with the Contractor and Surety, to be held not later than fifteen (15) days after receipt of such notice, to discuss methods of performing the Contract. If the CRCNV, the Contractor, and the Surety agree, the Contractor must be allowed a reasonable time to perform the Contract, but such an agreement does not waive the CRCNV's right, if any, subsequently to declare a Contractor Default; and
 - 3.2 The CRCNV has declared a Contractor Default and formally terminated the Contractor's right to complete the Contract. Such Contractor Default must not be declared earlier than twenty (20) days after the Contractor and the Surety have received notice as provided in paragraph 3.1; and
 - 3.3 The CRCNV has agreed to pay the balance of the Contract Price to the Surety in accordance with the terms of the Contract or to a contractor selected to perform the Contract in accordance with the terms of the Contract with the CRCNV.
4. When the CRCNV has satisfied the conditions of subsection 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
 - 4.1 Arrange for the Contractor, with the consent of the CRCNV, to perform and complete the Contract; or
 - 4.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - 4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the CRCNV for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the CRCNV and the contractor selected with the CRCNV's concurrence, to be secured with a performance bond executed by a qualified Surety equivalent to the bond issued on the Contract, and paid to the CRCNV the amount of damages as described in subsection 6 of the Balance of the Contract Price incurred by the CRCNV resulting from the Contractor's Default; or

- 4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:
 - 4.4.1 After investigation, determine the amount for which it may be liable to the CRCNV and, as soon as practicable after the amount is determined, tender payment therefore to the CRCNV; or
 - 4.4.2 Deny liability in whole or in part and notify the CRCNV citing the reasons therefore. If the Surety does not proceed as provided in subsection 4, with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen (15) days after receipt of an additional written notice from the CRCNV to the Surety demanding that the Surety perform its obligations under this Bond, and the CRCNV is entitled to enforce any remedy available to the CRCNV. If the Surety proceeds as provided in paragraph 4.4, and the CRCNV returns the payment tendered or the Surety has denied liability, in whole or in part, without further notice the CRCNV is entitled to enforce any remedy available to the CRCNV.
5. After the CRCNV has terminated the Contractor's right to complete the Contract, and if the Surety elects to act under paragraphs 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the CRCNV must not be greater than those of the Contractor under the Contract and the responsibilities of the CRCNV to the Surety must not be greater than those of the CRCNV under the Contract. To the limit of the amount of this Bond, but subject to commitment by the CRCNV of the Balance of the Contract Price to the mitigation of costs and damages on the Contract, the Surety is obligated without duplication for:
 - 5.1 The responsibilities of the Contractor for correction of defective work and completion of the Contract;
 - 5.2 Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the action or failure to act of the Surety under subsection 4; and
 - 5.3 Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or nonperformance of the Contractor.
6. The Surety is not liable to the CRCNV or others for obligations of the Contractor that are unrelated to the Contract, and the Balance of the Contract Price must not be reduced or set off on account of any such unrelated obligations. No right of action accrues on this Bond to any person or entity other than the CRCNV or its heirs, executors, administrators, or successors.
7. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders and other obligations.

8. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work is performed under the Contract and must be initiated within two years after the Contractor's Default, or within two years after the Contractor ceased working, or within two years after the Surety refuses or fails to perform its obligation under this Bond, whichever occurs first. If the provisions of this subsection are void or prohibited by law, the minimum of limitation available to sureties as a defense in the jurisdiction of the court is applicable.
9. Notice to the Surety, the CRCNV, or the Contractor must be mailed or delivered to the address shown on the signature page of this performance bond.
10. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the work is performed any provision of this bond conflicting with such statutory or legal requirement shall be deemed deleted here from and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
11. Definitions.
 - 11.1 "Balance of the Contract Price" means the total amount payable by the CRCNV to the Contractor under the Contract after all proper adjustments have been made, including allowances to the Contractor of any amounts received or to be received by the CRCNV in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Contract.
 - 11.2 "Contract" means the agreement between the CRCNV and the Contractor identified on the signature page, including all the Contract documents and changes thereto.
 - 11.3 "Contractor Default" means a failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
 - 11.4 "CRCNV Default" means a failure of the CRCNV, which has neither been remedied nor waived, to pay the Contractor or to perform in complete or comply with the other terms of this Contract.

SECTION 600
SUMMARY OF THE WORK

1. Project Description.

1.1 Garnet Valley Water System – 2920 Substation is a 12.47kV to 4.16kV substation serving the Southern Nevada Water Authority that will be constructed in Southern Nevada.

2. Work Under This Contract.

2.1 This Contract is to engineer, manufacture, assemble, test, ship, and provide ancillary services relating to the procurement of Distribution Transformers as specified herein.

2.2 It is anticipated that no one single supplier can provide a bid for all items, thus the Contract may be awarded in parts.

3. Delivery.

3.1 Bid Item 401 shall be shipped F.O.B. by the Contractor to Las Vegas, NV (36.308883°, -114.989844°).

3.2 The Contractor shall notify the following designated point of contact at least one (1) week in advance of any delivery date, and shall not make any shipments without prior approval.

Mr. Shae Pelkowski
Colorado River Commission of Nevada
Telephone: (702) 376-9997
Email: spelkowski@crc.nv.gov

3.3 No delivery will be approved until proper Submittals pertaining to storage and installation have been received and accepted.

3.4 Any items shipped without prior notification and approval may be returned to the point of origin, or unloaded and stored at a place and in a manner determined by the CRCNV, and the Contractor will be charged with any additional expense resulting therefrom.

4. Work by the CRCNV.

4.1 The CRCNV or its construction contractor will receive, unload, move, store, place, assemble, and install the Equipment furnished under this Contract No. CRCGV-01.

4.2 The CRCNV will test Equipment supplied under this Contract No. CRCGV-01, and shall perform energization and startup of the new facilities.

5. Work Schedule.

5.1 In order to satisfy the engineering information requirements for design and to allow the construction contractor sufficient time for installation, this Contract shall adhere to the following Performance Milestones.

5.1.1 Work Schedule:

5.1.1.1 Compliance Submittals within forty-five (45) days after notice to proceed (see sections 1000 and 1100 for requirements).

5.1.1.2 Maintenance and installation instructions within sixty (60) days after notice to proceed.

5.1.1.3 Delivery dates to be proposed by Contractor based on current equipment lead time.

5.2 The anticipated Final Acceptance Date for all Equipment is 10/01/2025.

6. Measurement and Payment.

All Equipment indicated in the Contract Documents must be included in the unit prices for the applicable Item(s). Equipment will be paid on a per unit basis. Change orders will be paid as stated in the change order.

7. Copies Of Documents.

7.1 After execution of the Contract, the Contractor will be provided at no cost one (1) set of fully executed Contract Documents.

7.2 Additional copies of above documents will be supplied upon request at the cost of printing and delivery.

SECTION 700 SUBMITTALS

1. General Information.

1.1 Submittals to be provided by the Contractor for the Equipment to be furnished are identified in this section 700 of the Contract Documents.

1.2 Submittal Types:

1.2.1 Compliance Submittals are shop drawings, product data, and samples that are prepared by the Contractor and submitted by the Contractor to the CRCNV as a basis for approval. The Contractor must not proceed with the Work affected by or related to a Compliance Submittal until the CRCNV has approved such submittal.

1.2.1.1 Shop drawings include custom-prepared data of all types including drawings, diagrams, performance curves, material schedules, templates, installation and maintenance instructions, and similar information applicable to the Equipment.

1.2.1.2 Product data includes standard printed information on materials, products and systems; not custom-prepared for this Project, other than the designation of selections from available choices.

1.2.1.3 Samples include both fabricated and unfabricated physical examples of materials, and products; both as complete units and as smaller portions of units of testing and analysis.

1.2.2 Procedure Submittals are narrative descriptions and/or drawings provided by the Contractor describing the methods, techniques, Equipment and processes to be used to complete all or some portion of the work. The CRCNV must review Procedure Submittals, but such review does not relieve the Contractor of its responsibility to determine its own means and methods for the Work.

1.3 Submittals must be of the quality for legibility and reproduction purposes. Every line, character and letter must be clearly legible. Drawings such as reproducible's must be useable for further reproduction to yield legible hard copies.

1.4 All words and dimensional units must be in the English language.

1.5 Submittals must be complete with respect to dimensions, design criteria, materials of construction, and other information specified to enable the CRCNV to review the information effectively.

1.6 The CRCNV may copy and use for internal operations and staff training purposes any and all submittals required by this Contract and approved for final distribution, whether or not such documents are copyrighted, at no additional cost to the CRCNV. If permission to copy any such submittal for the purposes stated is unreasonably withheld from the CRCNV by the Contractor or any Subcontractor, manufacturer, or Supplier, the Contractor shall provide fifty (50) copies plus the number of copies required in the following subsection to be submitted for approval.

2. Compliance Submittals.

2.1 When Compliance Submittals are required for a Bid Item they shall include but not be limited to, the following:

2.1.1 Manufacturer's specifications.

2.1.2 Catalog cut sheets, or parts thereof, of manufactured Equipment.

2.1.3 Shop fabrication and erection drawings.

2.1.4 General outline drawings of Equipment showing overall dimensions, location of major components, weights, and center of gravity, and location of required building openings and floor plates.

2.1.5 Detailed Equipment installation drawings, showing foundation details, anchor bolt sizes and locations, base plate sizes, location of CRCNV's connections, and all clearances required for erection, operation, and disassembly for maintenance.

2.1.6 Schematic diagrams for electrical items, showing external connections, terminal block numbers, internal wiring diagrams, and one-line diagrams.

2.1.7 Bills of material and spare parts lists.

2.1.8 Instruction books and operating manuals.

2.1.9 Material lists or schedules.

2.1.10 Performance tests on equipment by manufacturers.

2.1.11 Samples and color charts.

2.1.12 All drawings, catalogs, or parts thereof, manufacturer's specifications and data, samples, instructions, and other information specified or necessary:

2.1.12.1 For CRCNV to determine that the Equipment conforms to the design concept and comply with the intent of the Contract Documents.

2.1.12.2 For the proper erection, installation, operation and maintenance of the Equipment which CRCNV will review for general content but not for substance.

2.1.12.3 For CRCNV to determine what supports, anchorages, structural details, connections, and services are required for the Equipment, and the effects on contiguous or related structures, equipment, and materials.

2.2 At the time of each Compliance Submittal submission, call to the attention of CRCNV in the letter of transmittal any deviations from the requirements of the Contract Documents.

2.3 Make all modifications noted or indicated by CRCNV and return revised prints, copies, or samples until accepted. Direct specific attention in writing on revised Submittals, to changes other than the modifications called for by CRCNV on previous Submittals. After Submittals have been accepted, submit copies thereof for final distribution. Prints of accepted drawings transmitted for final distribution will not be further reviewed and are not to be revised. If errors are discovered during manufacture or fabrication, correct the Submittal and resubmit for review.

2.4 Equipment requiring a Compliance Submittal shall not be shipped until the Submittal has been stamped "Submittal Accepted" by CRCNV.

2.5 Except as otherwise specified, transmit all Compliance Submittals in the quantity as follows:

2.5.1 Initial Submittal – Four (4) copies to the CRCNV. One (1) copy will be returned to the Contractor.

2.5.2 Resubmittals – Four (4) copies to CRCNV. One (1) copy will be returned to the Contractor.

2.5.3 Samples must be of sufficient size and quantity to clearly illustrate the functional characteristics of the product and its full range of color, texture, and pattern.

2.6 The CRCNV will review and return Compliance Submittals with appropriate notations. The CRCNV's review action stamp will appear on all Compliance Submittals of the Contractor when returned by the CRCNV. The CRCNV's acceptance of Compliance Submittals will not relieve the Contractor from his responsibility as stated in the Contract.

2.7 Compliance Submittal Action Stamp. CRCNV's review action stamp, will appear on all Compliance Submittals of Contractor when returned by CRCNV. Review status designations listed on CRCNV's action stamp are defined as follows:

2.7.1 SUBMITTAL ACCEPTED Signifies Equipment represented by the submittal conforms to the design concept and complies with the intent of the Contract Documents. Copies of the Submittal are to be transmitted to CRCNV for final distribution.

2.7.2 SUBMITTAL ACCEPTABLE AS NOTED (REVISE & RESUBMIT) Signifies Equipment represented by the Submittal as noted conforms to the design concept and complies with the intent of the Contract Documents. Contractor is to proceed with fabrication or procurement of the items and with related work in accordance with CRCNV's notations and is to submit a revised Submittal responsive to notations marked on the returned Submittal or written in the letter of transmittal.

2.7.3 SUBMITTAL NOT ACCEPTED AS NOTED (REVISE & RESUBMIT) Signifies Equipment represented by the Submittal appears to conform with the design concept and comply with the intent of the Contract Documents but information is either insufficient in detail or contains discrepancies which prevent CRCNV from completing his review. Contractor is to resubmit revised information responsive to CRCNV's annotations on the returned Submittal or written in the letter of transmittal. Fabrication or procurement of items represented by the Submittal and related Work is not to proceed until the Submittal is acceptable.

2.7.4 SUBMITTAL NOT ACCEPTABLE (SUBMIT ANEW) Signifies Equipment represented by the Submittal does not conform to the design concept or comply with the intent of the Contract Documents and is disapproved. Contractor is to submit Compliance Submittals responsive to the Contract Documents.

3. Procedure Submittals.

3.1 When required, transmit all Procedure Submittals in the quantity as follows:

3.1.1 Initial Submittal: Four (4) copies to the CRCNV. One (1) copy will be returned to the Contractor.

3.1.2 Resubmittals: Four (4) copies to the CRCNV. One (1) copy will be returned to the Contractor.

SECTION 800 EQUIPMENT

1. Quality Assurance.

1.1 Conform to applicable specifications, codes, standards, and requirements of regulatory agencies.

1.2 Provide equipment or material that comply with the requirements of the Contract Documents, undamaged, and, unless otherwise indicated, new and unused at the time of installation. Provide equipment or material that are complete with all accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and for the intended use and effect.

1.2.1 Where they are available and if they comply with the Contract Documents, provide Equipment of types that have been produced and used successfully in similar situations on other projects.

1.2.2 Where, because of the nature of its application, CRCNV is likely to need replacement parts or additional amounts of the Equipment at a later date, either for maintenance and repair or replacement, provide standard products for which the manufacturer has published assurances that the Equipment and its parts are likely to be available to the CRCNV at a later date.

1.3 Comply with size, make, type, and quality specified, or as specifically approved in writing by the CRCNV.

1.4 If the Equipment is manufactured or fabricated:

1.4.1 Design, fabricate and assemble in accordance with the best engineering and shop practices.

1.4.2 Manufacture like parts of duplicate units to standard sizes and gauges, to be interchangeable.

1.4.3 Two or more items of the same kind and by the same manufacturer must be identical.

1.4.4 Equipment must be suitable for the service conditions intended.

1.4.5 Capacities, sizes and dimensions shown or specified must be adhered to unless variations are specifically approved in writing.

2. Transportation and Handling.

2.1 The Contractor shall prepare Equipment for shipment in a manner to facilitate unloading and handling, and to protect against damage or unnecessary exposure in transit and storage. Provisions for protection must include the following:

2.1.1 Crates or other suitable packaging materials.

2.1.2 Covers and other means to prevent corrosion, moisture damage, mechanical injury, and accumulation of dirt in motors, electrical equipment, and machinery.

2.1.3 Suitable rust-preventative compound on exposed machined surfaces and unpainted iron and steel.

2.1.4 Grease packing or oil lubrication in all bearings and similar items.

2.1.5 Moisture absorbing media in cabinets and electrical enclosures.

2.2 Tag or mark each item of Equipment with the Contract Number and Bid Item number as identified in the Contract Documents or on Compliance Submittals. Include complete packing lists and bills of material with each shipment. Each piece of every item need not be marked separately provided that all pieces of each item are packed or bundled together and the packages or bundles are properly tagged or marked.

2.3 The Contractor shall mail bills of material to the CRCNV prior to delivery of each shipment and shall include bills of material with each shipment.

2.4 Furnish the CRCNV with all requirements for unloading and handling of Equipment upon delivery sufficiently in advance to allow the CRCNV sufficient preparation time. Include type and capacity of unloading equipment required as applicable.

2.5 Deliver all Equipment by truck.

2.6 Deliver Equipment in an undamaged condition, in original containers or packaging, with identifying labels intact and legible.

2.7 Mark partial deliveries of component parts to identify the Equipment, to permit easy accumulation of parts, and to facilitate assembly.

2.8 The CRCNV shall receive, check, unload, inventory, accept and store all Equipment delivered to the specified location in accordance with proper notice.

3. Storage and Protection.

3.1 Furnish the CRCNV with all requirements for storage and protection of all Equipment sufficiently in advance of delivery to allow sufficient preparation time.

3.2 The CRCNV will furnish all facilities needed for storage of Equipment at the project site.

3.3 After delivery and acceptance, the CRCNV will assume responsibility for and protect all Equipment in accordance with the Contractor's recommendations.

**SECTION 900
MANUFACTURER'S FIELD SERVICE**

1. Services Required.

1.1 The requirement to provide a manufacturer's representative on-site during installation and startup of the Equipment is identified in those sections of this Contract providing the specifications for the Equipment. If the requirement to provide a manufacturer's representative is not identified, such service is optional by the Contractor.

1.2 If a manufacturer's representative is specified and required for the Equipment furnished:

1.2.1 Furnish the services of qualified, competent field representative and necessary assistants for the Equipment. The field representative must be certified by the manufacturer of the specified product or system as having the necessary knowledge and experience to perform the required functions.

1.2.2 The manufacturer's field personnel shall perform the following:

1.2.2.1 Observe the erection, installation, start-up, and testing of Equipment.

1.2.2.2 Instruct and guide the CRCNV in proper procedures.

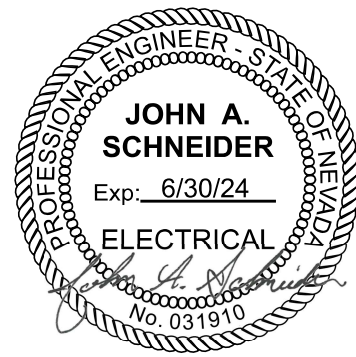
1.2.2.3 Supervise the initial start-up, operational check, and any required adjustments of the Equipment.

1.2.2.4 Instruct CRCNV's designated personnel in proper operation and maintenance of all Equipment.

1.2.3 The field representative shall report to the site at times designated by CRCNV.

1.2.4 The field representative must be acceptable to the CRCNV and must not be changed during the installation operations without the CRCNV's consent unless the field representative proves unsatisfactory to the Contractor.

SECTION 1000
26 12 19
Distribution Transformers



SECTION 26 12 19

DISTRIBUTION TRANSFORMERS

PART 1 - GENERAL

1.1 DEFINITION OF TERMS

A. "Bidder", "Seller", or "Contractor" shall be considered synonymous terms and shall mean the person, firm or corporation with whom Owner may enter into contract for execution of work specified.

B. "Owner" shall mean:

Southern Nevada Water Authority
100 City Parkway, Suite 700
Las Vegas, NV 89106
(702) 862-3786

Colorado River Commission of Nevada
Attn: Bob Reese
555 E Washington Avenue
Las Vegas, NV 89101
(702) 486-2670
breese@crc.nv.gov

C. "Engineer" shall mean:

HDR Engineering, Inc.
Attn: John Schneider
Project Manager
3231 Greensboro Drive, Suite 200
Bismarck, ND 58503
Phone: (701) 557-9711
john.schneider@hdrinc.com

D. "Work" shall mean work to be done in the course of construction and furnishing materials and equipment under the Equipment Contract, unless some other meaning is indicated by the context.

1.2 COMPONENTS OF SPECIFICATIONS

A. Detailed Specifications

1. Part 1 - General
2. Part 2 - Products

B. Numbered addenda if appended to the foregoing.

1.3 INTENT OF SPECIFICATIONS

A. To set forth requirements of performance, type of equipment desired, standards of materials and construction, tests to be made, and guarantees to be met.

- B. To require Seller to furnish all materials and equipment and perform all work and services described in the contract documents, unless otherwise specifically indicated.
- C. To require Seller to provide complete and operable equipment in spite of omission of specific reference to any minor component part.
- D. To require Seller to provide new materials and equipment.

1.4 INTERPRETATION OF SPECIFICATIONS

- A. Report any errors or omissions in specifications to the Engineer as soon as detected. The Engineer will answer questions and interpret intended meaning of specification. His interpretation shall be accepted as final.

1.5 METHOD OF BIDDING

- A. Equivalent products:
 - 1. Whenever specifications or plans call for item of material or equipment by manufacturer's name and type, "or equal", it is intended that products of equal quality and performance by other manufacturers may be substituted, subject to the approval of the Engineer.
 - 2. Furnish drawings or other data as required to indicate all modifications resulting from use of such substitute items. Furnish general arrangement drawings, full descriptive data, and other information required to demonstrate to Engineer that material or equipment proposed is, in fact, equal to that specified. Burden of proof of equality shall in all cases remain with Seller. Final approval of the substitution shall be made by the Engineer.
 - 3. Abide by Engineer's decisions when proposed substitutions of material or equipment are deemed to be unacceptable.
 - 4. Owner may consider such factors as over-all project arrangement, over-all project cost, and similar factors in determining acceptability of proposed substitutions.
 - 5. Approval of substitutions shall not relieve Seller of responsibility for providing workmanship, material, and equipment equal to that specified.
- B. Form of bid price submittal:
 - 1. Lump sum for all items to be furnished and delivered under this contract.
 - 2. Bid price shall cover complete work described in specifications, including costs incidental thereto, unless specifically indicated otherwise.
 - 3. List separately the price of services of Service Technician, as defined in the Summary of Proposal.

1.6 DATA TO ACCOMPANY BIDS

- A. A complete Equipment Contract and Summary of Proposal, as bound in the front of this specification, shall be properly completed and submitted to the Engineer, along with all other material listed below. All items submitted shall be sent to the Engineer no later than the time and date specified.
 - 1. Any exceptions taken by the Seller to the Specifications, Equipment Contract and/or Summary of Proposal at time of bid shall be clearly and simply stated or summarized, formatted, in a specially prepared letter of transmittal attached to and made a part of the Summary of Proposal.
Note: Manufacturer's "standard conditions of sale" catalog pages

are not acceptable for purposes of stating exceptions to the specifications.

2. Seller shall complete one copy of the "Summary of Proposal" for each alternative bid or proposal submitted. Additional copies may be prepared by photocopying the blank "Summary of Proposal" pages. Seller shall clearly identify each summary by alternate number.
- B. Seller's proposal shall also contain, as a minimum, one copy of the following:
1. Manufacturer's specifications, guarantees, and descriptive data on equipment proposed.
 2. Itemized list of special tools and spare parts which Seller proposes to furnish.
 3. Outline drawings showing general arrangement, approximate dimensions, space requirements and clearance, and approximate weights of proposed equipment.
 4. Standard and specified accessories and instruments to be furnished separately shall be listed in detail. List shall clearly define those items to be shipped separately. It is understood that all items not so listed shall be shipped, mounted and connected. Use Summary of Proposal for listing.
 5. Complete copy of the warranty the Seller will offer including option for extended guarantee through five years' total guarantee period.

1.7 EQUIPMENT GUARANTEE

- A. Without limiting any other provision of this specification regarding guarantees, guarantee the equipment as follows:
1. Seller shall guarantee to the Owner that the complete distribution transformer, together with all parts included in the original purchase, is free of defect in workmanship and materials and is capable of continuous and satisfactory performance when operated in accordance with the instructions provided by the Seller at the specified rating and capacity.
 2. Guarantee shall extend for a minimum of one year from the date of commercial operation. It shall cover all defects and malfunctions of the transformer and accessories. Guarantee shall cover all out-in freight by common carrier in full and the costs of removal from the site and reinstallation after repair. Seller shall not be liable for special, indirect or consequential damages, nor costs of moving structures or associated equipment.

1.8 DELIVERY AND SHIPMENT

- A. Bid shall include delivery F.O.B. jobsite, freight prepaid, with final destination delivery date as specified by the Seller in the Summary of Proposal.
- Project Location: Las Vegas, NV (36.308883°,-114.989844°)
- B. The Seller shall notify the Owner and Engineer when equipment is ready for shipment. Seller shall not release transformer for shipment until release is authorized by the Engineer.
1. All equipment in this contract with a common delivery destination shall be made in a common shipment. The Seller shall be responsible for all incidental costs incurred by the Owner due to separate shipments of such equipment.

2. Immediately after shipment, Seller shall notify the Owner and Engineer of transportation carrier and all transfers and references to permit follow-up on status of shipment and delivery.
 3. The Seller shall investigate all limitations in regard to shipping the equipment F.O.B. destination. Transformer shall be shipped as completely assembled as transportation limits allow.
 4. A three-axis impact recorder shall be attached to the transformer to continuously record the date, time, place, and magnitude of impacts during loading, shipping, and unloading. The recorder shall be placed in operation before loading and shall remain in operation until the unit is placed in its final position on its foundation. Equipment shall not be accepted until the Engineer has examined the recorder record for impacts. GPS equipped recorders are preferred.
 5. Equipment damaged in shipment will be refused on delivery and it will be the Seller's responsibility to arrange for prompt repair or replacement to the standards of new equipment. The Seller will not be relieved of the responsibility of delivering undamaged equipment even if the damage is internal or otherwise goes undetected and the nature of the damage remains unknown until the equipment is energized and tested.
- C. In the case rail transport is used for any part of delivery:
1. Equipment shall be shipped by cushioned underframe or end-of-car cushioned rail cars on which the cushioning devices have been recently inspected and determined to be 100 percent operable, or other means agreed to by the Owner's Engineer.
 2. Impact recorders furnished by the Seller shall be properly packaged, oriented, and attached to the rail cars as near the equipment bases as possible. The recorders shall be three-way, measuring X, Y, and Z impacts separately. The charts shall be stamped adequately to determine the date, time, and place of severe impacts. Impact recorders shall be placed in operation before the equipment begins shipment and shall remain attached and in operation until the equipment has been sided at the proper rail siding. Equipment will not be accepted by the Owner until after the Engineer has examined the recorders for impacts and any visible damage to equipment.
- D. Prior to shipment, all gauge and indicator glass shall be thoroughly cleaned and covered with non-adhesive shipping protectors.
- E. The transformer shall be shipped with the vacuum/pressure gauges installed and connected. Prior to shipment, the Seller shall affix signed and dated weatherproof tags to the vacuum/pressure gauges listing the gauge readings, the ambient temperature, and the barometric pressure at the time of reading. Sealed tank constructed transformers shall be shipped with a dry-air oil blanket to assure positive pressure. Transformer with dry nitrogen oil preservation systems shall be shipped with preservation system in operation to assure positive pressure. Transformer shipped dry shall be shipped with positive pressure.
- F. When transformer draw-lead type bushings are removed for shipment, the bushing leads shall be securely attached to the underside of the blind flanges covering the bushing hole so that the leads are readily accessible for connection from outside the transformer tank.
- G. Insulating oil shipped separately shall be delivered F.O.B. destination, freight prepaid. For transformer shipped dry, oil shall be delivered by tank truck. For

transformer shipped oil filled, any make-up oil of quantities less than 1,000 gallons shall be provided in 55-gallon non-returnable drums. Oil to be shipped by tank truck shall not be released for shipment until release is received from the Engineer. A tentative date for delivery of oil will be furnished by the Engineer subsequent to establishing transformer delivery and assembly schedule. Seller shall inform Engineer of standard demurrage-free time allowed for unloading of oil shipped by tank truck. Demurrage-free unloading time allowed by the seller shall not be less than four (4) hours.

- H. Oil shall be accompanied by a certified test report showing characteristic of oil as described in Section 1.12 of this specification. Oil shall not be shipped unless it meets minimum requirements as specified.
- I. Delivery shall not be made prior to earliest acceptable delivery specified in Summary of Proposal. Should delivery be made prior to earliest acceptable delivery date, the Owner reserves the right to withhold initial payment without any additional cost until 30 days after the earliest acceptable delivery date. In addition, the supplier shall be responsible for all incidental costs incurred by the Owner due to early delivery.

1.9 DRAWINGS AND INSTRUCTIONAL MATERIAL

- A. Manufacturing Progress Reports
 - 1. Within thirty (30) days of order, the Seller shall furnish the Engineer with a manufacturing schedule for transformer to be furnished under this specification. Seller's schedule shall include projected time allotment for engineering, major materials delivery, all major divisions of fabrication and assembly, testing, and shipment. This schedule shall allow for work completed on each item to be shown in conjunction with projected schedule in a manner which allows updating for furnishing progress reports.
 - 2. Progress reports shall be furnished to the Engineer monthly, with each report showing progress from the previous month. However, the Engineer may request progress reports on a more frequent basis should the Seller's progress seriously fall behind his projected schedule.
- B. Shop Drawings for Approval
 - 1. "Shop Drawings" refers to all the detailed installation drawings prepared by the Seller and/or his suppliers required to construct the material as defined in the specifications, and shall include all fabrication drawings, working drawings, design calculations, foundation loadings, material schedules, detailed layouts, and assembly information.
 - 2. The Seller agrees that submittals and shop drawings processed by the Engineer are not change orders; that the purpose of submittals and shop drawings by the Seller is to demonstrate to the Engineer that the Seller understands the design concept, that he demonstrates his understanding by indicating which equipment and material he intends to furnish and install, and by detailing the fabrication and installation methods he intends to use. The Seller alone accepts all responsibility for assuring that all materials furnished under these specifications meet in full all requirements of the contract documents. The Engineer's review is for general conformance with the design concept and contract documents. Markings or comments shall not be construed as relieving the Seller from compliance with the project plans and specifications, nor departures therefrom. The Seller remains responsible for details and accuracy for

confirming and correlating all quantities and dimensions, for selecting fabrication processes and for techniques of assembly.

3. Submit the following shop drawings to the Engineer in the manner specified hereinafter. Make initial submittal of information requested on or before the date specified in the Summary of Proposal:
 - a. Certified outline assembly and installation drawings as appropriate for each item.
 - b. Complete nameplate data for each item.
 - c. Schematic diagrams of all control and alarm circuits.
 - d. Complete connection diagram of items, including current transformers and linear couplers.
 - e. Bushing current transformer data, including excitation and ratio correction factor curves.
 - f. Such other similar information as the Owner may request.

C. Engineer's Action

1. Engineer will review shop drawings and indicate action taken according to the following classifications:
 - a. No Exceptions Taken: Indicates that the shop drawing has been reviewed and appears to be in general agreement with the requirements. Seller may make further distribution of shop drawings and proceed with fabrication and/or installation of the work detailed on the drawing.
 - b. Make Corrections Noted: Design revisions, deletions, additions, and comments shown on these drawings shall be incorporated into the design before proceeding with fabrication or drawing distribution.
 - c. Amend and Resubmit: Indicates that the shop drawing, or part thereof, does not appear to be in general agreement with the requirements. Engineer's comments are noted on the shop drawing and/or separate letter. Seller shall recheck and make any necessary revisions and resubmit for Engineer's review.
 - d. Rejected: Indicates that the shop drawings do not conform to requirements. Reasons for rejection are noted on the shop drawing and/or separate letter.

D. Shop Drawing Submittal and Distribution

1. Initial Submittal (REVIEW): Submit one (1) electronic copy in PDF and AutoCAD format of each shop drawing to the Engineer; direct mailing to the Engineer's email address given in Section 1.1, C. One (1) copy of the shop drawings indicating the Engineer's action will be returned to the Seller with one (1) week from the date of receipt.
2. Resubmittal: If drawing is returned to the Seller with Engineer's comments and action noted "RESUBMIT", the drawing should be rechecked and revised as necessary and resubmitted in manner described in "1 - Initial Submittal".
3. Final Distribution (CERTIFIED): Within the time schedule listed in the Summary of Proposal, Seller shall submit to the Engineer one (1) electronic copy in PDF and AutoCAD format of all final drawings covered in Section 1.9, B above. AutoCAD drawings shall be emailed along with all related dependent files such as x-refs, font files, and plot styles. Transmit to the Engineer's email address given in Section 1.1, C.

E. Instruction Manuals, Test Reports, and Parts Lists

1. Seller shall furnish complete instruction manuals covering installation, operation and maintenance for all equipment. Manuals, bound in vinyl and properly labeled to indicate the facilities covered, shall include:
 - a. All shop drawings listed in Section 1.9, B. (Reduce as required to fit in manuals.)
 - b. Specific equipment instruction books.
 - c. Renewable parts lists for all replaceable parts and assemblies.
 - d. Test report for all shop tests required under Section 1.11.
 2. Submit one (1) electronic PDF copy to Engineer for distribution and one (1) printed paper copy with distribution transformer delivery (located inside control cabinet). Paper copy shall be bound in vinyl and properly labeled to indicate the facilities covered. Engineer's address is given in Section 1.1, C.
- F. Shop Drawing and Instructional Material Transmittal Form
1. Seller may use his own form of transmittal letter for distribution of shop drawings, clearly marked "For Approval" or "Certified" as applicable.
 2. Submit one (1) electronic PDF copy of transmittal form with each set of drawings or instructional materials.
- G. Seller's Responsibility
1. Prior to submittal, check shop drawings for errors, correctness of details, and conformance with the specifications.
 2. Notify Engineer of any inconsistencies or questions regarding approval revisions or comments on the drawings.
 3. Review of shop drawings by Engineer does not relieve the Seller of responsibility for errors, correctness of details, or conformance with the specifications.
 4. Fabrication and shipment of materials or equipment prior to Owner's release of drawings, data, and information mentioned hereinbefore, shall be at Seller's risk.

1.10 CODES AND STANDARDS

- A. Perform work in accordance with best present-day installation and manufacturing practices.
- B. Unless specifically noted to contrary, conform with and test in accordance with applicable sections of latest revisions of following codes and standards:
 1. American National Standards Institute (ANSI).
 2. American Standards Association (ASA).
 3. National Electrical Manufacturer's Association (NEMA).
 4. American Society for Testing Materials (ASTM).
 5. International Electrotechnical Commission (IEC) Standards.
 6. Institute of Electrical and Electronic Engineers (IEEE).
 7. National Electric Safety Code (NESC)
- C. Conflicts between referenced codes and standards: Code or standard establishing more stringent requirements shall be followed.
- D. If the transformer fails any test, the Engineer shall be notified immediately. The Engineer shall be consulted about the failure, and based on the test results, the Engineer may require that all tests be repeated.

1.11 SHOP TESTS

- A. Perform required tests on all transformers in accordance with the latest version of ANSI C57.12.00, Section 8. Tests shall include:
1. Resistance measurements of all windings.
 2. Ratio tests for all no-load tap positions.
 3. Polarity and phase relation tests at rated voltage.
 4. No load loss at rated voltage and frequency.
 5. Impedance voltage and load loss.
 6. Excitation current at rated voltage and frequency.
 7. Temperature test (manufacturer may supply results of such standard test if made of previous unit of same rating and design.)
 8. Low frequency dielectric test.
 9. Impulse tests, with the exception of front-of-wave test, shall be performed on all terminals per ANSI C57.12.90.
 10. Induced potential and corona test (per IEEE P262 B.)
 11. Audible sound tests per ANSI C57.12.00 and NEMA TR-1.
- B. Provide Engineer with one (1) certified electronic PDF copy of all transformer test data, including oscillograms when performed. Copies shall be in the form that they can be bound into instruction books by others.
- C. Owner and/or Engineer may visit factory as required to witness tests and assure compliance with specification. Seller shall notify the Engineer two (2) weeks in advance of the proposed date of testing. Visits will be made at no cost to Seller.

1.12 INSTALLATION

- A. The Seller or a third party approved by the Seller and supervised by the Seller's representative shall receive, offload transformer onto pad, assemble, and fill the transformer.
- B. The transformer shall be field filled with the same type of oil that was used for the factory testing. The transformer oil in each tanker delivered to the installation site shall be tested before filling the transformer to assure that no contamination occurred during transport. The oil shall be tested for PCBs, moisture content, dissolved gases, and adequate dielectric strength. The oil shall also be tested for corrosive sulfur per the following:
1. Doble Test D1275B – Corrosive Sulfur in Oil
 2. Doble CCD Test – Aids in determining if the copper sulfide deposition in the paper is likely to occur
 3. Doble Test for sulfur compound
- C. Prior to oil filling, Seller shall supply certified oil tests showing insulation oil meets the following minimum requirements per ASTM:
1. Dielectric strength - 34 kV
 2. Acid number (NN) - 0.05 mg/KOH/g
 3. Interfacial tension (IFT) - 36 d/cm.
 4. Color (number) - clear.
 5. PCB content (PPM) less than one (1) PPM.
- D. Seller shall provide certification by test that the oil is PCB-free per EPA definition 7-1-96, and contains less than one PPM PCB's. If Seller is unable to provide certification of less than one PPM, seller must include as part of proposal the PCB content seller will certify.

1.13 FIELD SERVICE TECHNICIAN

- A. Provide a competent Field Service Technician who shall as a minimum:
 - 1. Inspect transformer on pad before assembly crew begins assembly of transformer.
 - 2. Supervise assembly of transformer by assembly crew.
 - 3. Perform mechanical and electrical tests as required to ensure integrity of service.
 - 4. Inspect assembly to assure that devices are correctly assembled and connected.
 - 5. Supervise any oil filling of transformer including pulling vacuum.
 - 6. Inspect completed assembly for oil leaks.
 - 7. Fully instruct operating personnel in construction, assembly, operation, and maintenance of equipment.
- B. Field Service Technician shall submit report to the Engineer, listing all test results and mechanical clearances. All required test equipment shall be furnished by Field Service Technician.
- C. Service Technician shall make no less than one (1) trip to the jobsite to supervise assembly.
- D. If any of the Service Technician's time spent at jobsite, or if any of his trips to jobsite are required to make corrections to equipment supplied under this specification resulting from defective material or workmanship used in the manufacture of equipment, such time and trips will be at the Seller's expense.

1.14 FIELD TESTS

- A. The Seller or a third party approved by the Seller and supervised by the Seller's representative shall perform acceptance testing on the transformer after field assembly is complete. The tests shall include as a minimum:
 - 1. Insulation Power Factor Test (Overall winding, Bushings, Excitation, Oil, and Arresters)
 - 2. Insulation Resistance (Windings and Core Ground)
 - 3. Turns Ratio (TTR)
 - 4. Bushing Current Transformers (Ratio, Polarity, Excitation, and Insulation Resistance)
 - 5. Functionals (Alarms, Gauges, and Controls Verifications)
 - 6. Baseline Oil Analysis (DGA and Oil Screen)
- B. If equipment fails to function properly because of defects, Seller will make necessary corrections and, upon completion thereof, demonstrate to Owner that these defects have been corrected.

1.15 DEFECTIVE EQUIPMENT

- A. Should equipment fail to conform to specifications or to operate satisfactorily, Owner will have right to operate equipment until defects are corrected and guarantees met.
- B. Owner will have right to operate rejected equipment until it is replaced without cost for depreciation, use, or wear.

- C. Equipment may be removed from operation for examination, adjustment, alteration, or change, only at time approved by the Owner.

1.16 TRANSFORMER BID EVALUATION

- A. In estimating the lowest cost to the Owner as one of the factors in deciding the award of the contract, the Owner will consider, in addition to the prices quoted in the Summary of Proposal, the following:
 - 1. Any exceptions taken and noted in the Summary of Proposal.
 - 2. If escalation is proposed by the Bidder, the maximum escalated price will be used in comparison of bids. Escalation will be computed based on past 12 months of BLS statistics.
 - 3. An amount in dollars equal to the following formula will be added to the proposal price for evaluation of transformer efficiency:
 - a. 12.47-4.16/2.4 kV, 10MVA Distribution Transformer
$$\text{Evaluated transformer loss} = (\text{NL} \times \$4,000\text{kW}) + (\text{LL} \times \$2,000\text{kW}), \text{ where}$$

NL = No Load loss guarantee in KW at rated voltage.
LL = Load Loss in KW at ONAN rating and nominal voltage.
 - 4. Most favorable time for delivery. The owner explicitly reserves the right to otherwise evaluate or reject any bid which has a guaranteed final delivery date which may result in failing to meet the project completion deadline.
 - 5. Assembly costs will be considered as follows when evaluating bids:
 - a. Oil handling for filling tank and radiator.
\$2,000 (small quantities of make-up oil)
\$12,000.00 (if core & coil exposed)
 - b. Other items based on Engineers' hourly estimates for time of assembly.
\$200.00/crew hour
 - 6. Freight charges for oil to be shipped separately, where such freight is not included as prepaid in bid price, will be estimated at \$3.00 per gallon.
 - 7. Estimated LTC maintenance costs for comparing types of LTCs proposed, if an LTC is specified.
 - 8. Field service technician as estimated by bidder in the Summary of Proposal. Note: Bidder shall provide all field service items specified in Section 1.13 in the estimated time.

1.17 FAILURE TO MEET GUARANTEED DELIVERY DATE

- A. Since delivery of transformer specified herein is critical to the scheduling of the Owner's project, the Seller shall make every reasonable effort to meet the guaranteed delivery date specified in the Summary of Proposal.
- B. The Owner agrees to indemnify the Seller for circumstances resulting in late delivery of transformer where such circumstances are beyond the control of the Seller. Circumstances beyond the control of the Seller are defined as: acts of God, acts of government, transportation to final destination, failure of equipment under test, material shortages due to failure of others to make timely delivery, and any other circumstances reasonably beyond the control of the Seller.

- C. Upon any actual or projected departure from the manufacturing schedule which, in the opinion of the Seller, may result in delay in shipment, the Seller shall immediately notify the Engineer of the following:
 - 1. Explanation of delay or potential delay.
 - 2. Means by which delay could be minimized.
 - 3. Projected new shipment date.
 - 4. Additional details as requested by the Engineer.

- D. Should the Seller fail to make a reasonable effort to meet the guaranteed delivery date where this failure is evidenced by: failure to inform the Engineer of changes in the manufacturing schedule, failure to allow sufficient time for delivery of materials and equipment necessary for manufacturing, or lack of cooperation in effective measures by which delays could be minimized, the Owner may charge the Seller an amount not in excess of \$1,000.00 per day for each day that the factory shipping date falls beyond the guaranteed delivery date specified in the Summary of Proposal.

- E. The Engineer reserves the right to inspect the progress of work at the Seller's facilities at any time subsequent to notice of such intent.

1.18 PENALTIES FOR FAILING TO MEET PERFORMANCE GUARANTEE

- A. In the event that the Seller's factory test or the Owner's field tests show that the transformer does not meet the loss guarantees quoted in the Summary of Proposal, the Seller will be penalized an amount equal to the "actual loss" evaluation in excess of "guaranteed loss" evaluation, as determined by:
 - 1. 12.47 - 4.16/2.4 kV, 10MVA Distribution Transformer
 $(NLA-NLG) \times \$4,000/kW + (LLA-LLG) \times \$2,000/kW$, where:
 NLA = Actual no load loss in kW
 NLG = Guaranteed no load loss in kW
 LLA = Actual total loss minus actual no load loss in kW
 LLG = Guaranteed total loss minus guaranteed no load loss in kW

There shall be no additional payment to the Seller if the test results indicate that losses are less than Seller's guaranteed limits.

Losses will be computed in kW at ONAN rating and nominal voltage.

1.19 SHORT CIRCUIT PERFORMANCE

- A. In addition to test requirements as specified in Section 1.11, the following requirements shall be met:
 - 1. Short-circuit strength:
 - a. Without limiting in any way obligation of the Seller under this agreement, the Seller shall demonstrate, to the satisfaction of the Owner, that the transformer proposed to be furnished under this specification shall have sufficient mechanical strength to withstand, without failure, all through-fault currents. The Seller shall state that the transformer meets this requirement by one of the following methods:
 - 1) Certified test data showing that a transformer, with a core and coil identical in design and construction and identical or similar with respect to kVA capacity, kV ratings, BIL,

impedance and voltage taps, has been tested without failure for short-circuit strength. Seller shall indicate if test reports for these units show allowable variation of impedance in conformance with ANSI specifications C57.12.90. A description of the test code, under which the transformer was tested for short-circuit strength, shall be provided by Seller to the Owner.

- 2) A history of successful experience with transformers of identical or similar ratings, design, and construction. The Seller shall provide a list of transformers in service, with core and coils which are essentially identical in design, construction and manufacture to the transformer on the date of installation and failures, if any. Where such transformers have not been built, or the cumulative service record is less than 20 transformer years, a list of transformers in service which represents the closest approximation to the transformer covered by this specification shall be submitted. The information submitted shall be representative of the total experience of the manufacturer with the design of the transformer it proposed to furnish and include the dates of installation or shipping, the ratings of the transformers, and the failures and causes of failure, if any have been experienced.

1.20 FINAL ACCEPTANCE AND PAYMENT

- A. Owner will not accept equipment as final until installation is complete and equipment is ascertained to be in conformance with specifications and guarantees.
- B. Payment will be made thirty (30) days after receipt of all equipment, drawings, instruction books and test reports as required by these specifications and in accordance with the contract. However, the Owner reserves the right to withhold payment up to thirty (30) days beyond the earliest acceptable delivery date specified in the "Summary of Proposal" for equipment received prior to this specified date. In addition, Seller shall be responsible for all incidental costs incurred by the Owner due to early delivery.

PART 2 - PRODUCTS

2.1 12.47-4.16/2.4 KV, 10 MVA DISTRIBUTION TRANSFORMER - GENERAL

- A. Quantity to be furnished:
 1. Two (2) Distribution Transformer to be used for step-down purposes. All transformers with the same ratios provided under this specification shall be of identical construction, including all ratings, components, wiring, physical size, etc.
- B. Service Conditions:
 1. Outdoor, continuous duty.
 2. Altitude: Transformers shall be suitable for operating at an altitude of less than 3,300 feet above sea level. For altitudes above 3,300 feet, apply Altitude Correction Factors in accordance with ANSI C57.12.00, Paragraph 4.3.

3. Ambient Conditions: Ambient temperature of cooling air shall not exceed 50°C; average temperature shall not exceed 40°C for any 24 hour period. Expected minimum temperature is 0°C. The top liquid temperature of the operating transformer shall not be lower than -20°C.
4. Auxiliary AC power available: 120/240 Volt, single-phase.
5. Auxiliary DC power available: 125 Volt DC.
6. Seismic Loading: In accordance ASCE values
 - a. SDS: 0.522 g
 - b. SD1: 0.284 g
 - c. FPGA: 1.34
7. Use: Step-down from distribution voltage to service voltage.
8. Special: Transformer shall be designed and tested in accordance with ANSI C57.12.34.

C. The following specifications apply to base bid transformers and any alternate transformers unless specifically stated otherwise.

2.2 ELECTRICAL CHARACTERISTICS

- A. The transformer shall be rated:
1. Number of Phases..... Three (3)
 2. Coolant..... Oil
 3. Class of Cooling ONAN
Liquid Immersed, Self-Cooled
 4. Distribution Transformer Rating 10 MVA, 55°C rise
All MVA ratings for the transformer shall be continuous.
 5. Frequency 60 Hz
 6. Impedance H-X ANSI Standard
 7. Polarity ANSI Standard
 8. Angular Displacement ANSI Standard
 9. High voltage winding shall be Delta-connected, rated 12,470 Volts, 95 kV BIL. Provide de-energized tap changer with 2.5% full capacity de-energized taps, two above and two below the nominal voltage rating. Full MVA rating shall be available at all tap positions.
 10. Low voltage winding shall be grounded wye-connected, rated for voltage operation with full rated capacity at 4,160Y/2400 Volts, 60 kV BIL.
 11. Neutral winding connection shall be rated for 60 kV BIL. The system will be a solidly grounded wye.
 12. Voltage ratings of individual windings and taps shall be no-load voltages, based on turns ratio.
 13. Winding Temperature: The average winding temperature rise above ambient shall not exceed 55° C; hottest-spot temperature rise shall not exceed 70° C.
 14. Audible Sound Level: The audible sound level shall not exceed the value given in NEMA Standard TR-1 1.05 when measured in accordance with the IEEE C57-12.90.

2.3 CONSTRUCTION FEATURES AND REQUIRED ACCESSORIES

- A. The transformer shall have sealed tank construction with welded cover and with bolted and gasketed handhole type inspection port. The tank shall be of sufficient strength to withstand a pressure of 25% greater than the maximum operating pressure without permanent distortion. The transformer shall be suitable for operation over a top oil temperature range of -5°C to +105°C provided the liquid level has been properly adjusted to the indicated 25° C level.

When required, corrugated cooling panels or radiators shall be provided on the sides of the tank. The tank base must be designed to allow skidding or rolling in any direction.

1. Tamper Resistant Construction: The transformer and associated terminal compartments shall be designed and constructed as to be tamper resistant as set forth in ANSI C57.12.28 including, but not limited to, the pry test, pull test, and wire probe test. There shall be no screws, bolts or other fastening devices which are externally removable.
2. Terminal Compartments: Full-height, air-filled incoming and outgoing terminal compartments with individual hinged doors shall be located on each end for top or bottom cable entry of high and low voltage cables. To facilitate making connections and permit cable pulling, the doors and compartment hood shall be removable. The doors shall have a 3-point latching mechanism with cabinet handle having provisions for a single padlock. In addition to the regular locking provision, all access doors shall be secured by a recessed, captive, pentahead bolt that meets the dimensions set forth in ANSI C57.12.28. The doors shall be equipped with lift-off type stainless steel hinges and door stops to hold the doors open when working in the compartments. Removable door sill on compartments shall be provided to permit rolling or skidding of unit into place over conduit studs in foundation. ANSI tank grounding provisions shall be furnished in each compartment.
3. Incoming Line Section: The incoming line compartment shall enclose the high voltage terminations and equipment and provide for incoming cable from below. Design shall be dead front and conform to ANSI C57.12.10 requirements and RUS dead front equivalent design standards.

The incoming line equipment shall be arranged for radial feed, one cable circuit to the transformer.

Equipment enclosed in the incoming compartment shall include:

- a. Bushing Style:
 - 1) Three (3) - HV sidewall porcelain bushings with NEMA 4-hole spade terminator. Porcelain color shall be ANSI No. 70.
 - 2) One (1) - Neutral sidewall bushing with externally removable link for testing.
- b. Bushing Supports:
 - 1) Bushing supports shall be provided for all bushings and shall be attached to the cabinet sidewalls or roof; tank-mounted support mountings are not acceptable.
 - 2) The high voltage compartment shall have a removable, insulated barrier across the front which must be removed before access to the high voltage compartment can be obtained subsequent to opening of the door.
4. Outgoing Line Section: The outgoing line compartment shall enclose the low voltage bushings and provide for outgoing cables from above or below. Design shall be in accordance with ANSI C57.12.10 requirements and RUS dead-front equivalent design standards.

Equipment enclosed in the outgoing compartment shall include:

- a. Bushing Style:
 - 1) The transformer shall be provided with tin-plated spade-type bushings. The spacing of the connection holes shall

- be 1 3/4" on center, per ANSI C57.12.26 Figure 9. The quantity of connection holes shall be 10 holes.
- b. Bushing Supports:
 - 1) Bushing supports shall be provided for all bushings regardless of connection holes. Bushing supports shall be attached to the cabinet sidewalls or roof; tank-mounted support mountings are not acceptable.
 - c. Bushing Configuration:
 - 1) The transformer shall be provided with bushings in a in-line arrangement in accordance with Figure 8b of ANSI C57.12.26. The bushing heights shall be in accordance with Figure 7 of ANSI C57.12.26.
5. Tap Changing Mechanism: A tap changing mechanism shall be provided for accurate voltage adjustment without opening transformer tank. The tap changing mechanism shall be externally operated and shall be for de-energized operation only. The tap changer mechanism shall have an operating handle brought outside of the tank in accordance with ANSI C57.12.10. Provisions for padlocking tap change in place shall be provided.
 6. Radiators: The transformer shall be equipped with removable radiators composed of galvanized steel tubes. Radiator assemblies shall be provided with butterfly type shut-off valves between the header and the main tank and shall be provided with means for draining the radiator assembly. The radiators shall be grouped so that cleaning and painting of the radiators and transformer bank in the field can be accomplished without removing the radiator.
 7. Other Accessories:
 - a. Dial-type top oil thermometer with over-temperature alarm contacts. Provide Qualitrol Series 104.
 - b. Magnetic liquid level gauge with low level alarm and trip contacts. Sensor shall be located on the tank wall at a location as required to protect insulated parts due to an excessively low oil level. Mounting location shall be below normal oil level a sufficient distance to assure security from false operation. Provide Qualitrol Series 032.
 - c. Pressure vacuum gauge, with adjustable high and low pressure alarm contacts. Provide Qualitrol Series 70.
 - d. Dial type gauges, valves and control cabinet should be grouped together on the LV side of the transformer for easy accessibility and maintenance. All gauges over 96" from the floor shall have their faces tilted down at a angle of 30° from the vertical. Wells for oil thermometer bulbs and liquid level gauge floats shall be outside the main tank so as not to require un tanking for their removal. All gaskets shall be of reusable rubber with means provided for controlled compression.
 - e. A cover-mounted pressure relief device (PRD) for the transformer tank shall be provided in accordance with ANSI C57.12.39. PRD shall feature an alarm contact, automatic resealing-resetting operation, and mechanical signal for indication of device operation. Provide Qualitrol Series
 - f. Manually activated pressure relieve valve (PRV) with pull ring for use with a standard hookstick. The PRV shall be designed and located to minimize liquid egress.

- g. Provide one (1) rapid pressure rise relay, Qualitrol 900-009-03 (flange connected in oil space) with seal-in relay, style 909-200-01. Seal-in relay shall be rated for operating at 48 VDC and 125 VDC and shall provide separate alarm and trip contacts. Qualitrol rapid pressure rise relay shall be mounted on the side of the transformer tank with a gate type shutoff valve, located in the lower half of the tank to permit testing. Seal-in relay chassis shall be mounted in control cabinet, Item "K" below.
 - h. All alarm and trip contacts shall be Form C and per ANSI C57.12.10, Paragraph 9.7.1, suitable for operation at 48 VDC and 125 VDC. All alarms and trips available from gauges, indicating devices and relays shall be prewired to terminal blocks for remote wiring interface.
 - i. Two-hole NEMA type tank grounding pads per ANSI C57.12.10, one in each compartment (1/2 - 13 tap) with stainless steel bolts and split lock washers. Provide two (2) bronze ground terminal connectors, Anderson Catalog No. SWH-025-B, or approved equal.
 - j. Diagrammatic nameplate to include all ratings and impedances shall be located per ANSI C57.12.10 in Segment 1 or 4 near the centerline and near eye level.
 - k. Lifting eyes/hooks on main tank for lifting complete transformer with high and low voltage bushings installed.
 - l. Facilitates for lifting core and coil assembly from tank and for lifting transformer cover.
 - m. Jacking facilities with pulling eyes at four corners of the base.
 - n. Globe type combination drain and lower filter valve (2 inch screw end) with sampling device (3/8 inch) for the transformer tank. The drain valve shall be located so as to allow draining or sampling from the bottom of the tank.
 - o. Globe type upper filter valve, 2 inch screw end for the transformer tank.
 - p. Four (4) NEMA standard grounding pads shall be provided near the base of the transformer at each corner of the tank wall (exterior of terminal compartments). Grounding lugs shall be furnished and installed on each pad for a 4/0 7-stranded cable. (Anderson Catalog No. SWH-025-B, or approved equal.)
 - q. Provide phase barriers between the high and low voltage bushings.
8. Control Cabinet: Provide one (1) waterproof, dust tight control cabinet with hinged front door. The control cabinet shall be mounted on the main tank for termination of all auxiliary and accessory equipment wiring. This cabinet shall provide terminal blocks for terminating control and alarm wiring, as well as individual short-circuiting type terminal blocks for all current transformers. Accessories for this cabinet shall include:
- a. An LED maintenance light with guard
 - b. GFCI convenience outlet
 - c. Thermostat controlled heater(2), sized to mitigate condensation and maintain a 0°C minimum cabinet temperature over the specified environmental operating conditions, and compatible with available auxiliary AC power.

Cabinet height shall be convenient for access from floor level. Control wiring shall be brought into control cabinet through suitable rigid conduit, sized according to N.E.C. and painted as specified for the transformer

tank. Cabinet shall be arranged and designed to permit outgoing conduits to exit from the side and bottom as may be required. Ten percent spare terminals shall be provided for terminating spare control cable wiring. Include a copper ground bus tapped for grounding all CT's, spare control wires, and cable shields.

9. Surge Arresters: Surge arresters of intermediate class shall be mounted beneath the high voltage bushings and connected to the spade connector. Location of surge arresters shall not interfere with connection of incoming line conductors. Provide Ohio Brass, Type PVR, 7.65 MCOV surge arrester with tank mounted brackets.

2.4 PAINT AND FINISH

- A. Preparation for and application of paint to exterior of tanks and accessories shall meet or exceed requirements of ANSI C57.12.28. The transformer exterior shall be coated to minimum thickness of 3 mils. Color shall be ANSI #70 light grey (Munsell 5BG 7/0.4). Provide two quarts of touch-up paint for each transformer along with a coating system repair procedure.
- B. All masking materials shall be removed from the transformers prior to shipment. Protective shipping covers for gauges, etc., shall be provided in accordance with previous sections.

2.5 STANDARDS

- A. The transformer shall be designed, constructed, and tested in accordance with the latest revision of the applicable IEEE, ANSI, and NEMA standards, except where specific requirements of these specifications conflict with these standards. In such cases, these specifications shall take precedence.
- B. It is assumed that the equipment provided by the manufacturer will be in strict compliance with these specifications unless specific exception is taken and an explanation provided.

APPENDIX
SUMMARY OF PROPOSAL – ITEM NO. 1
12.47 - 4.16/2.4 kV, 10 MVA DISTRIBUTION TRANSFORMER
 (Requires Completion by Bidder)
 *Denotes guaranteed value

A. Price and Delivery

1. Base Bid:

 Total price to furnish and deliver F.O.B. to jobsite, one (1) 12.47-4.16/2.4 kV, 10 MVA Distribution Transformer and accessories as described in Part 2 of these specifications. \$ _____

2. Can Seller meet delivery date based upon award of contract within ten (10) working days after bid opening? _____*
 (yes, no)

- If not, Seller shall enter the earliest guaranteed delivery date of equipment to its final destination. _____*
 mm/dd/yyyy

3. Are the prices quoted in A.1 above firm? _____*

- If not:

 For delivery as specified in A.2 above, what is the maximum percentage increase that will be applied to the price quoted in A.1? _____ %*

- If price is to be adjusted other than above, Seller shall supply price policy in detail with bid, complete with base data necessary for evaluation.

4. Does price quoted in A.1 above include all freight prepaid and allowed to jobsite for any oil to be shipped separately as specified? _____*
 (yes, no)

5. Transformer Loss Evaluation: (Section 1.16, A.3) \$ _____*

B. Warranty Options

1. Five (5) year extended warranty with first year IN/OUT \$ _____*

C. Drawings

Will Seller meet delivery times as listed below for drawings based upon award of contract within ten (10) working days after bid opening?

- 1. Approval Drawings
 - a. Outline Drawing (6 weeks ARO) _____ *
 - (yes, no)
 - b. All Approval Drawings (8 weeks ARO) _____ *
 - (yes, no)
- 2. Final drawings (8 weeks ARA) based on return of approval drawings by Engineer within ten (10) working days _____ *
- (yes, no)
- 3. If Seller cannot meet drawing delivery dates listed above, show the delivery dates below which can be met:
 - a. Outline Drawings (weeks ARO) _____ *
 - b. All Approval Drawings (weeks ARO) _____ *
 - c. Final Drawings (weeks ARA) _____ *

D. Data

- 1. Manufacturer _____
- 2. Location of factory _____
- 3. Type of transformer design. (Core or Shell; if core form, state number of legs). _____
- 4. Concise description of winding design(s).
 - a. High voltage (12.47 kV) _____
 - b. Low voltage (4.16/2.4 kV) _____
- 5. Winding material _____ **Copper only**
- 6. Shipping weight of largest piece _____ **lb***
- 7. Weight of transformer complete _____ **lb**
- 8. Weight of core and coil assembly _____ **lb**
- 9. Weight of oil _____ **lb**

10. Quantity of oil _____ gal
11. Weight of case _____ lb
12. Type of oil _____
13. Type of oil preservation system _____
14. Will any oil be shipped separately? _____
(yes, no)
- If yes list approximate quantity and means of shipment (tank truck, drum, or other) _____ gal
- Is the cost of oil shipment included in the bid price? _____
(yes, no)
15. Height over cover _____ in
16. Height over top-mounted HV bushings _____ in
17. Height over top-mounted LV bushings _____ in
18. Width, including radiators, and width of base _____ in
19. Depth, including radiators (LV to HV side), and depth of base _____ in
20. Shipping height _____ in
21. Current rating of high voltage bushings _____ A
22. Manufacturer and catalog number of high voltage bushings _____
23. Current rating of low voltage and neutral bushings _____ A
24. Manufacturer and catalog number of low voltage and neutral bushings _____
25. Do all bushings meet specified kV BIL rating after applying all applicable derating factors? _____
(yes, no)
26. Impedance (guaranteed) Sec. 2.2.A.6 H-X (10 MVA base) \pm 7.5% Tolerance _____ %
27. Maximum Regulation (H-Winding to X-Winding) on 10 MVA rating at rated voltage:
- a. Unity power factor _____ %*
- b. .95 power factor lag _____ %*
- c. .90 power factor lag _____ %*
- d. .80 power factor lag _____ %*

28. Maximum no-load loss at rated voltage (corrected to 20°C) _____ kW*
29. Maximum no-load loss at 110% rated voltage (corrected to 20°C) _____ kW*
30. Maximum total loss including no-load loss and load loss at 55°C rise and ratings listed below (loss corrected to 85°C)
- a. For 10 MVA, rated voltage (Class ONAN) _____ kW*
32. Audible sound level:
- a. Audible sound level limit for this transformer design and rating per NEMA TR-1 _____ dB
- b. Guaranteed maximum audible sound level for Manufacturer design as proposed in Item A.1. _____ dB*
33. Items which will be shipped separately and require field assembly (list):*
- a. _____
- b. _____
- c. _____

Seller Company: _____

Address: _____

By: Name: _____

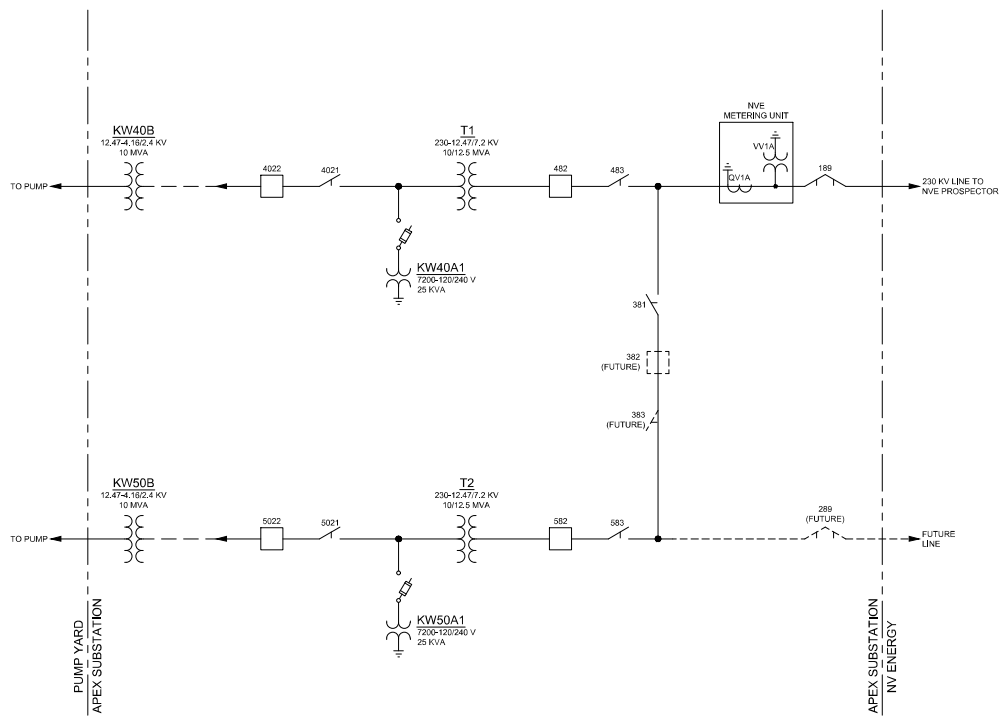
Title: _____

Date: _____

END OF SECTION

SECTION 1100
Drawing List

<u>Drawing Number</u>	<u>Description</u>
3533s-18-E-E50	SWITCHING DIAGRAM
3533s-18-E-E51	GENERAL ARRANGEMENT
3533s-18-E-E52	ELEVATIONS SECTIONS A & B
3533s-18-E-E53	ELEVATION SECTIONS C, D, E & F
3533s-18-E-E54	RELAYING ONE LINE DIAGRAM
3533s-18-E-E161	PCB PLATFORM - SP1



POWER CIRCUIT BREAKERS						
NAME	KV	CONT AMPS	SHORT CKT KA	TIME CYCLES	MANUFACTURER	MODEL
482, 582	230	2000	40	3	XXX	XXX
4022, 5022	15	1200	20	5	XXX	XXX

DISCONNECT SWITCHES						
NAME	KV	CONT AMPS	SHORT CKT KA	TYPE	MANUFACTURER	MODEL
381, 483, 583	230	1200	61	VB	XXX	XXX
189	230	1200	61	CBV	XXX	XXX
4021, 5021	15	1200	61	VB	XXX	XXX

POTENTIAL TRANSFORMERS				
NAME	KV	RATIO	MANUFACTURER	MODEL
V1A	230	1200/2000:1	XXX	XXX

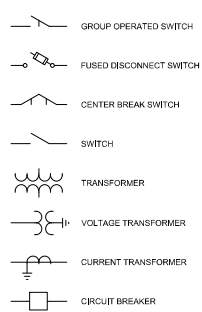
CURRENT TRANSFORMERS				
NAME	KV	RATIO	MANUFACTURER	MODEL
QV1A	230	50:5	XXX	XXX

TRANSFORMERS			
NAME	VOLTAGE	MAX KVA	MANUFACTURER
T1, T2	230-12,477.2 KV	12,500	XXX
KW40B, KW50B	12,474-1822.4 KV	10,000	XXX
KW40A1, KW50A1	7,200-120/240 V	25	XXX

BUS AND JUMPERS (SEE NOTES 1 & 2)			
NAME	DESCRIPTION	KV	CONT AMPS
HV LINE JUMPER	954 KCM AAC, "MAGNOLIA"	230	947
HV MAIN RIGID BUS	4" SFS ALUMINUM, SCH 40	230	2529
HV MAIN BUS JUMPER	954 KCM AAC, "MAGNOLIA"	230	947
LV MAIN RIGID BUS	4" SFS ALUMINUM, SCH 40	12.47	2529
LV MAIN BUS JUMPER	556.2 KCM AAC, "DAHLIA"	12.47	677

- NOTES:**
- BUS AMPACITY IS BASED ON 40°C RISE OVER 50°C AMBIENT TEMPERATURE. EMISSIVITY = 0.5 W/SUN.
 - CONDUCTOR AMPACITY IS BASED ON 50°C RISE OVER 50°C AMBIENT TEMPERATURE. EMISSIVITY = 0.5 W/SUN, 2FT, 3SEC, WIND.

DEVICE LEGEND



SOUTHERN NEVADA WATER AUTHORITY

VERIFY SCALE

BAR REPRESENTS 10 INCHES ON ORIGINAL

**GARNET VALLEY WATER SYSTEM
APEX 2920 PUMPING STATION SITE
APEX SUBSTATION
SWITCHING DIAGRAM**

FR 8750 VIA AUSTIN PARKWAY SUITE 350 LAS VEGAS, NEVADA 89119 (702) 938-6000

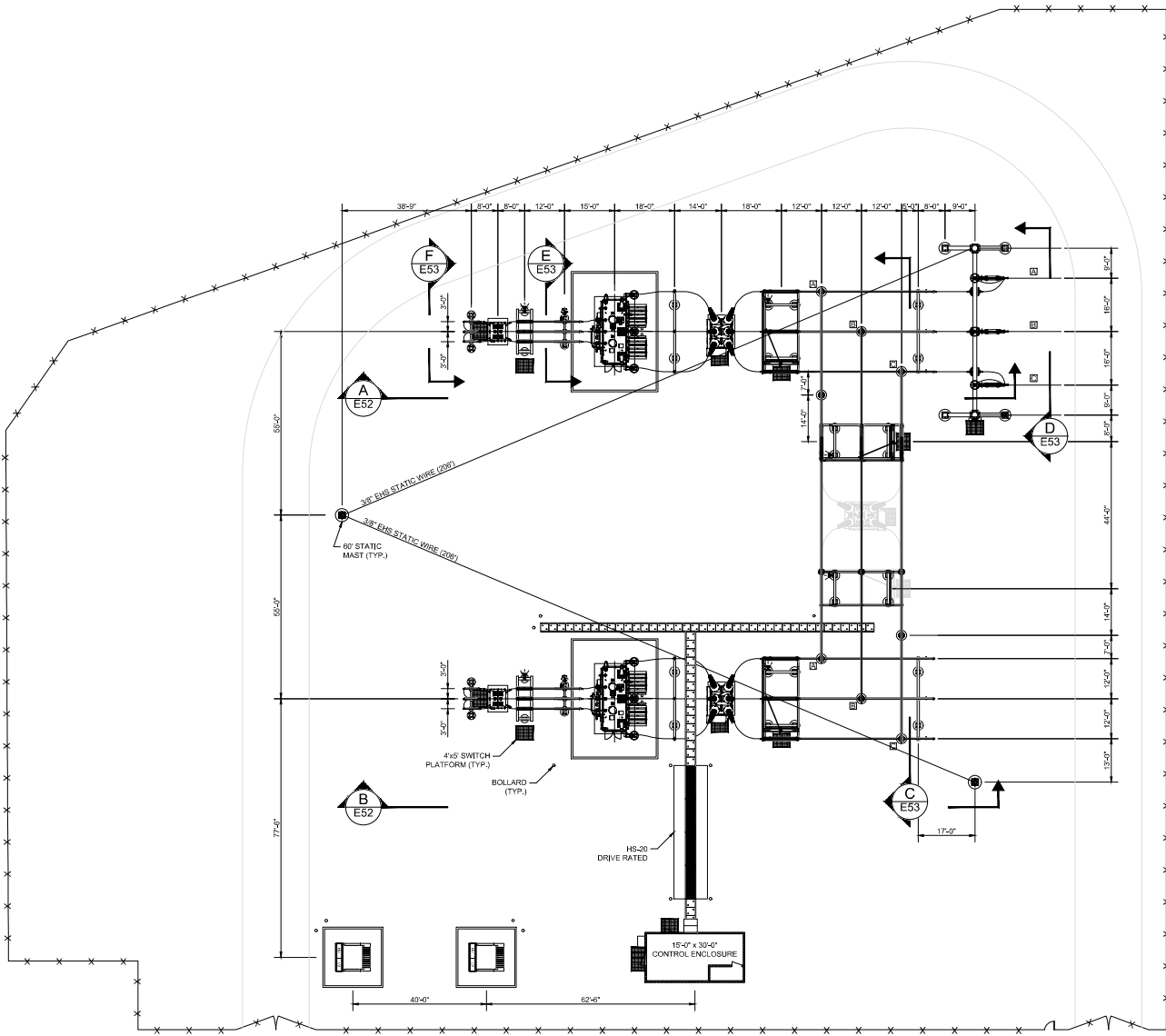
DRAWN BY: SHARON W. ZAJAN
CHECKED BY: ZIGAR ASHBAET

PROJECT: 35335
COMMIT: 010717
E50

1/18/24

SHEET OF

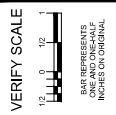
REVISIONS: 90% DESIGN SUBMITTAL - PRELIMINARY SUBMITTAL NOT FOR CONSTRUCTION



GENERAL NOTES:
 1. SEE WRITTEN SPECIFICATIONS FOR MATERIAL PROVIDED BY OWNER AND MATERIAL PACKAGER.

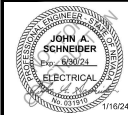
LEGEND
 □ PHASE SIGN MARKER
 ▲ STATION LIGHT

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GARNET VALLEY WATER SYSTEM
 APEX 2920 PUMPING STATION SITE
 APEX SUBSTATION
 GENERAL ARRANGEMENT

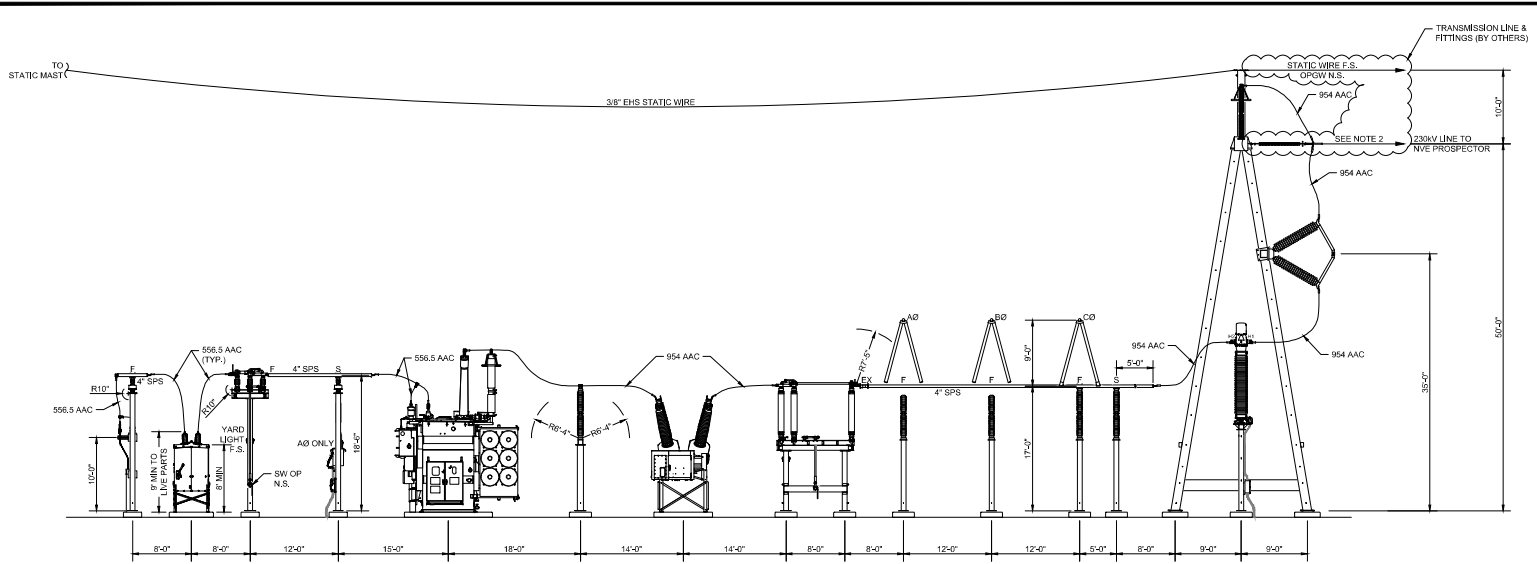
FR
 6750 VIA AUSTIN PARKWAY SUITE 350
 LAS VEGAS, NEVADA 89119
 (702) 938-6000
 DRAWN BY: BRADSHAW
 CHECKED BY: ZIGAR ASHBAET



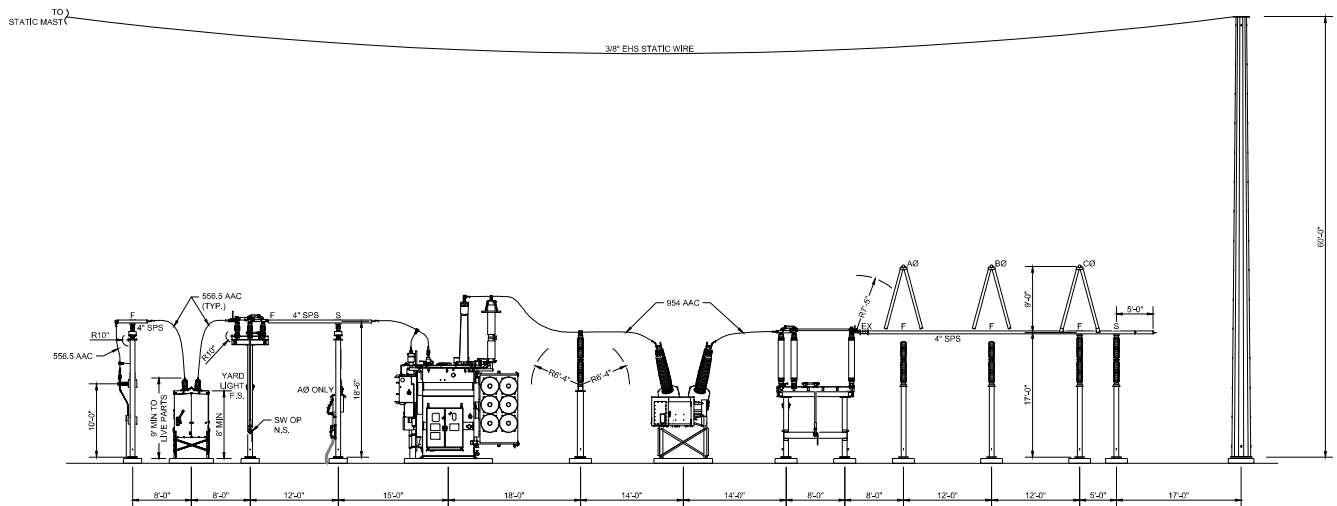
PROJECT: 35335
 COMMIT: 010717
 DRAWING NUMBER
E51

SHEET OF

REVISIONS: 60% DESIGN SUBMITTAL - PRELIMINARY SUBMITTAL NOT FOR CONSTRUCTION



SECTION A
SCALE: 1/8"=1'-0"




SECTION B
SCALE: 1/8"=1'-0"

- LEGEND**
- S SUP BUS CONNECTION
 - F FIXED BUS CONNECTION
 - E EXPANSION BUS CONNECTION

- NOTES:**
1. SEE WRITTEN SPECIFICATIONS FOR MATERIAL PROVIDED BY OWNER AND MATERIAL PACKAGER.
 2. LIMIT THE INCOMING LINE ANGLE TO A MAXIMUM OF 15°.
 3. STRUCTURE HEIGHTS MEASURED FROM BOTTOM OF BASE PLATES.
 4. DAMPENING CABLE TO BE INSTALLED IN HORIZONTAL BUS LONGER THAN 8 FEET.
 5. ALL HORIZONTAL RIGID BUS TO INCLUDE A 2" WEEP HOLE AT MID-SPAN BETWEEN ALL BUS SUPPORTS.

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**SOUTHERN NEVADA
WATER AUTHORITY**

VERIFY SCALE

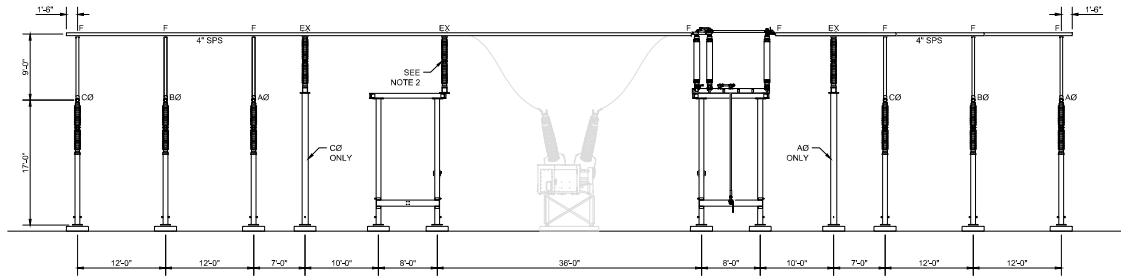
BAR REPRESENTS
INCHES ON ORIGINAL
SCALE
1/8"=1'-0"

GARNET VALLEY WATER SYSTEM
APEX 2920 PUMPING STATION SITE
APEX SUBSTATION
ELEVATIONS SECTIONS A & B

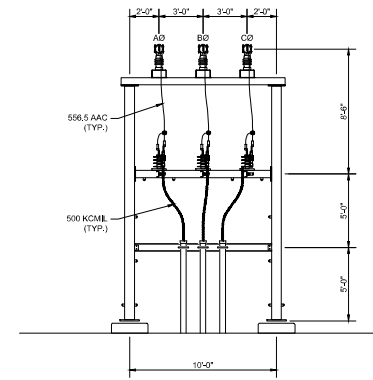
DESIGNED BY: J. BASSIN / J. ADAMS
DRAWN BY: C. ZAR / A. RAFT
DATE: 1/19/24

PROJECT: 35335
COMMIT: 019717
DRAWING NUMBER
E52

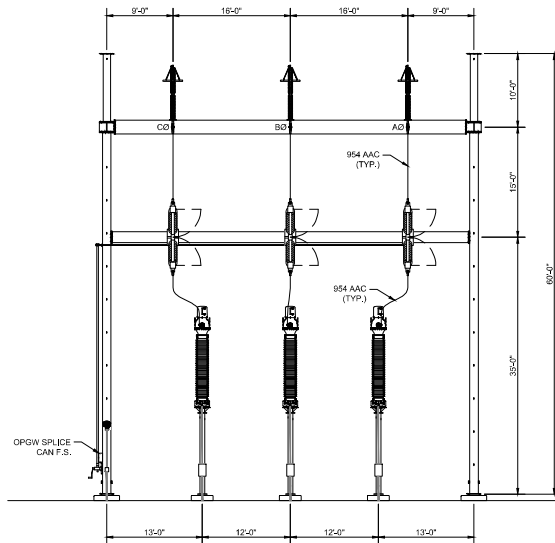
SHEET OF



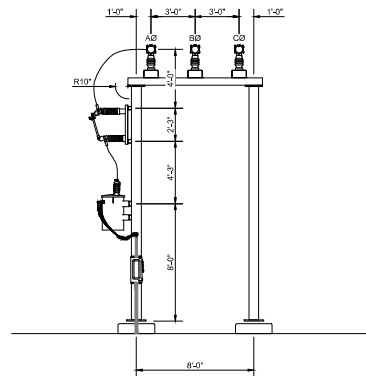
SECTION C
SCALE: 1/8"=1'-0"
SCALE: 1/8"=1'-0"



SECTION E
SCALE: 1/4"=1'-0"
SCALE: 1/4"=1'-0"



SECTION D
SCALE: 1/8"=1'-0"
SCALE: 1/8"=1'-0"



SECTION F
SCALE: 1/4"=1'-0"
SCALE: 1/4"=1'-0"

LEGEND
 S SUP BUS CONNECTION
 F FIXED BUS CONNECTION
 E EXPANSION BUS CONNECTION

NOTES:
 1. SEE WRITTEN SPECIFICATIONS FOR MATERIAL PROVIDED BY OWNER AND MATERIAL PACKAGER.
 2. INITIALLY A THREE PHASE BUS SUPPORT WILL BE PLACED ON THE SWITCH STRUCTURE TO SUPPORT BUS WORK. FOR ULTIMATE BUILD OUT, THE BUS SUPPORTS WILL BE REPLACED WITH A 230KV SWITCH.
 3. STRUCTURE HEIGHTS MEASURED FROM BOTTOM OF BASE PLATES.
 4. DAMPENING CABLE TO BE INSTALLED IN HORIZONTAL BUS LONGER THAN 8 FEET.
 5. ALL HORIZONTAL RIGID BUS TO INCLUDE A 1/2\"/>

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SOUTHERN NEVADA WATER AUTHORITY

VERIFY SCALE
 12 0 12
 BAR REPRESENTS INCHES ON ORIGINAL

GARNET VALLEY WATER SYSTEM
 APEX 2920 PUMPING STATION SITE
 APEX SUBSTATION
 ELEVATION SECTIONS C, D, E & F

SCALE AS SHOWN

FR
 6750 VIA AUSTIN PARKWAY SUITE 350
 LAS VEGAS, NEVADA 89119
 (702) 938-6000
 DRAWN BY: BRADSHAW
 CHECKED BY: ZIGAR ASHBAET

PROJECT: 35335
 COMMIT: 019717
 DRAWING NUMBER
E53
 SHEET OF

1/19/24

RESUBMISSION: 95% DESIGN SUBMITTAL - PRELIMINARY SUBMITTAL NOT FOR CONSTRUCTION



VERIFY SCALE
 1" = 10'
 BAR REPRESENTS 1/8" INCHES ON ORIGINAL

SCALE
 NTS

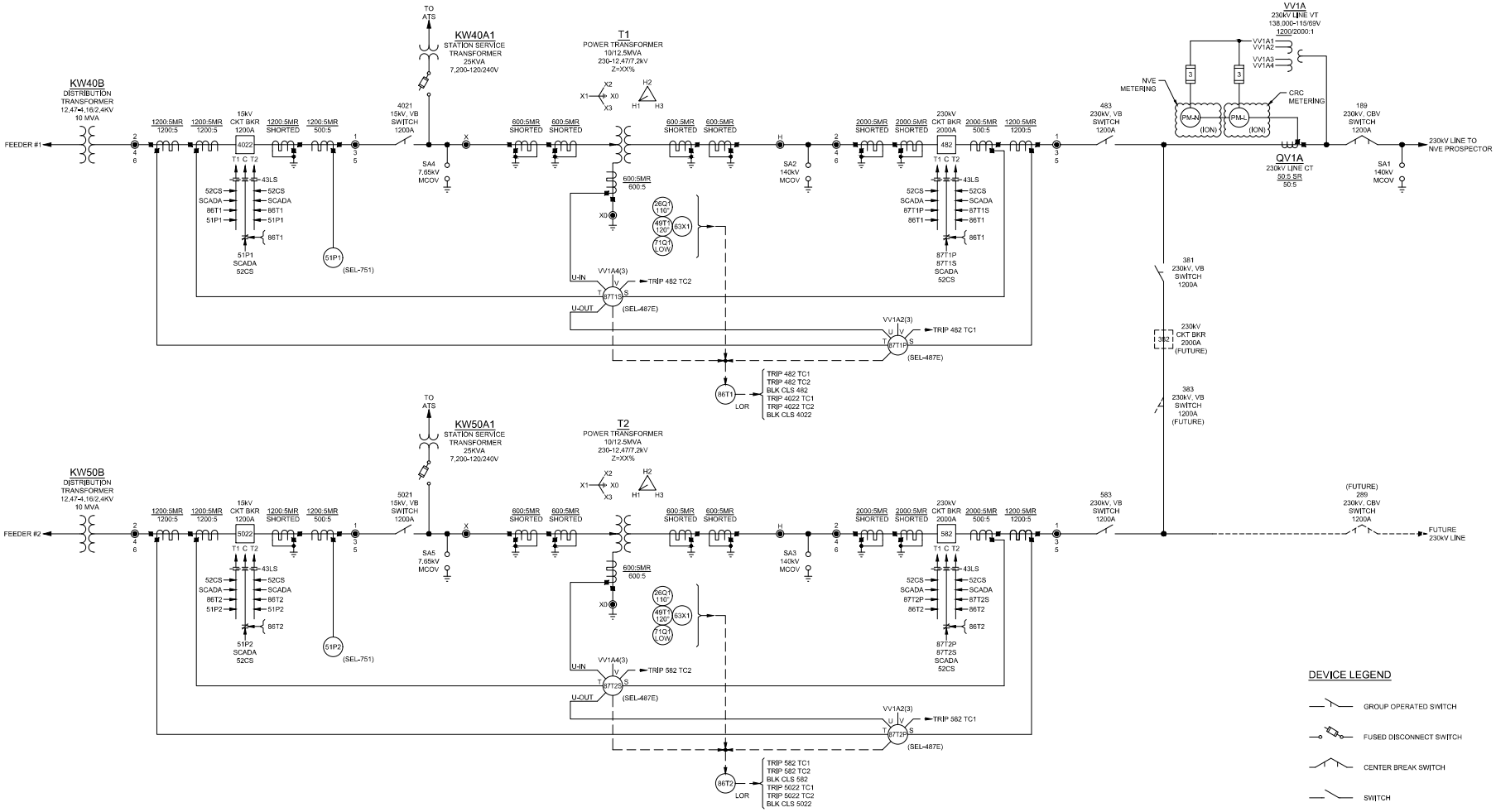
GARNET VALLEY WATER SYSTEM
 APEX 2920 PUMPING STATION SITE
 APEX SUBSTATION
 RELAYING ONE LINE DIAGRAM

FR
 6750 W. AUSTIN PARKWAY SUITE 350
 LAS VEGAS, NEVADA 89119
 (702) 938-6000
 DRAWN BY: SHIRAZA ZAMAN
 CHECKED BY: ZIYAR ASHBAE



PROJECT: 35335
 COMMIT: 019717
 DRAWING NUMBER
E54
 SHEET OF

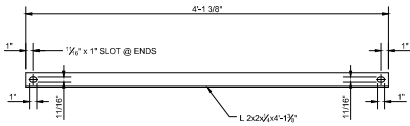
REVISIONS: 60% DESIGN SUBMITTAL - PRELIMINARY SUBMITTAL NOT FOR CONSTRUCTION



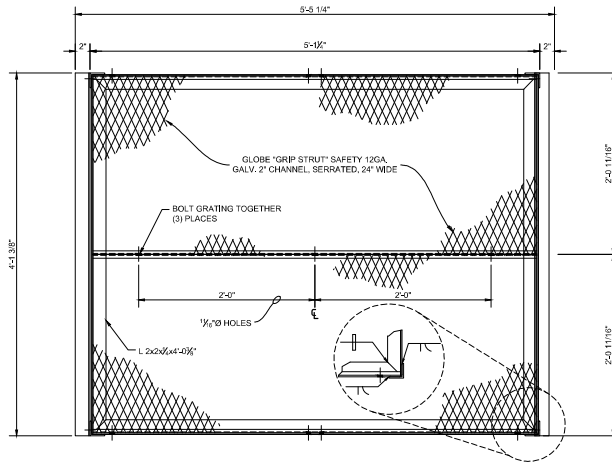
DEVICE LEGEND

- GROUP OPERATED SWITCH
- FUSED DISCONNECT SWITCH
- CENTER BREAK SWITCH
- SWITCH
- TRANSFORMER
- VOLTAGE TRANSFORMER
- CURRENT TRANSFORMER
- CIRCUIT BREAKER
- MOTOR OPERATOR

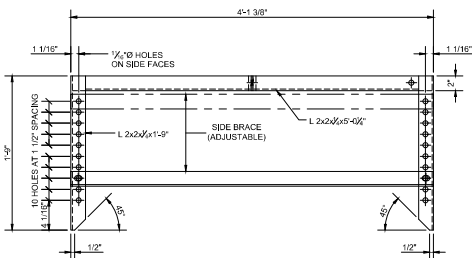
DEVICE NAME	FUNCTIONS	RELAY
87T1PS	50/51P, 50/51N, 87, 50/866P	SEL-487E
87T2PS	50/51P, 50/51N, 87, 50/866P	SEL-487E
51P1	50/51P	SEL-751
51P2	50/51P	SEL-751
86T1	LOCK-OUT RELAY	78PB05D
86T2	LOCK-OUT RELAY	78PB05D
52CS	CONTROL SWITCH	24PC38D
43LR	LOCAL REMOTE SWITCH	78PB02D
26Q	TEMPERATURE SWITCH	TBD BY VENDOR
49T	TEMPERATURE MONITOR	TBD BY VENDOR
63X	PRESSURE RELAY	TBD BY VENDOR
71Q	LIQUID LEVEL RELAY	TBD BY VENDOR



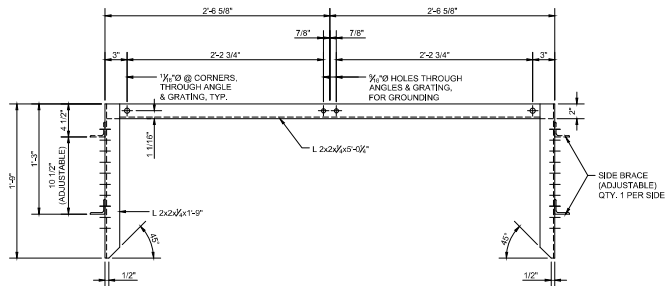
SIDE BRACE - (QTY 2 PER PLATFORM)



PLAN



SIDE ELEVATION



FRONT ELEVATION

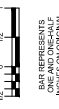
PCB PLATFORM - SP1
SCALE 1-1/2\"/>

STRUCTURE NOTES:

1. ALL STRUCTURE MOUNTING HOLES ARE 1/2\"/>
2. EACH BOLT ASSEMBLY SHALL INCLUDE A TYPE 'NF' LOCKOUT.
3. STEEL PACKAGER SHALL PROVIDE ALL FASTENERS NEEDED TO ASSEMBLE EACH STRUCTURE AND A 5% OVERAGE.
4. STRUCTURES AND ATTACHMENTS WILL BE DESIGNED TO BE AS SYMMETRICAL AND SQUARE AS REASONABLE.
5. SEE E51 AND EXX FOR PLATFORM LOCATIONS AND QUANTITIES.



VERIFY SCALE



BAR REPRESENTS
INCHES ON ORIGINAL

GARNET VALLEY WATER SYSTEM
APEX 2920 PUMPING STATION SITE

APEX SUBSTATION
PCB PLATFORM - SP1

SCALE

1/16

REVISIONS: 99% DESIGN SUBMITTAL - PRELIMINARY SUBMITTAL NOT FOR CONSTRUCTION



6750 W. AUSTIN PARKWAY SUITE 350
LAS VEGAS, NEVADA 89119
(702) 938-6000

DRAWN BY:
CHECKED BY:
DATE: 1/18/24



PROJECT: 35336

COMMIT: 010717

DRAWING NUMBER
E161

SHEET OF